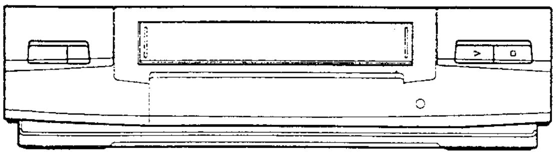
1994

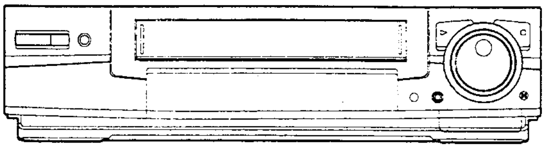
MITSUBISHI

Service Manual

VIDEO CASSETTE RECORDER

VHS
PAL


HS-M50


HS-M60

MODEL
HS-M50V(ED)
HS-M50V(G)
HS-M60V(ED)
HS-M60V(G)

Only cassettes marked VHS can be used with this video cassette recorder.

SPECIFICATION

Tape Format	: VHS 1/2" high-density video cassette tape
Power Source	: AC 230V ; 50Hz
Power Consumption	: Approx. 33W
Television System	: 625lines, 50fields System CCIR B&G PAL
Video Recording System	: Azimuth helical scanning system
Luminance	: Frequency modulation recording
Colour Signal	: Low frequency conversion subcarrier phase shift recording
Hi-Fi Audio Recording System	: Azimuth helical scanning system, Frequency modulation, deep layer recording
Linear Audio Track	: 1 track
Tape Speed	: 23.39mm/sec (PAL SP mode) 11.70mm/sec (PAL LP mode)
Record/Playback Time	: 240min. with E-240 cassette (PAL SP mode) 480min. with E-240 cassette (PAL LP mode)
Heads:Video	: 4 rotary heads
Hi-Fi Audio	: 2 rotary heads
Audio/Control	: 1 stationary head
Erase	: 1 full track head
Video Input	: 0.75 to 1.5Vp-p, 75Ω unbalanced EURO AV socket [All] RCA pin plig [M60]
Audio Input:Line	: –8dBs, 50kΩ unbalanced EURO AV socket [All] RCA pin plig [M60]
Video Output	: 1.0Vp-p, 75Ω unbalanced EURO AV socket
Audio Output	: –6dBs, 1kΩ unbalanced EURO AV socket and RCA pin plug
TV Tuner VHF	: 47~89MHz, 104~470MHz
UHF	: 470~862MHz
Operating Temperature	: 5°C to 40°C
RF Channel Output	: Set to Channel 36 (Channel 32~40 selectable)
Weight	: Approx. 5.4kg
Dimensions	: 390(W)×94(H)×326(D)mm [M50] 390(W)×94(H)×335(D)mm [M60]
Timer	: 8 programmes for any channels in one month/every day/every week day 24 hour digital synchronized with oscillator frequency.
Channel Selection	: 100 position Up/Down + EXT
Deck	: J Deck

- ●Weight and dimensions shown are approximate.
- ●Design and specifications are subject to change without notice.

MITSUBISHI ELECTRIC

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DISASSEMBLY

Note: Any screw can be used between 669D448030 securing the boss of the molded parts(silver) and 669D220030 (preferred part) for replacement because they are compatible with each other in service.

1. Removal of Top Cover

① Remove the two Top Cover fastening screws (ⓐ and ⓑ) shown in Fig. 1 and remove the Top Cover in the direction shown by the arrows.

2. Removal of Front Panel

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Unfasten seven catches (ⓒ~ⓘ), two on the top, two on the side, and three on the bottom, and remove the Front Panel in the direction shown by the arrows.

Note: Remove the Jog Dial and the Shuttle Ring before removing the Front Panel.

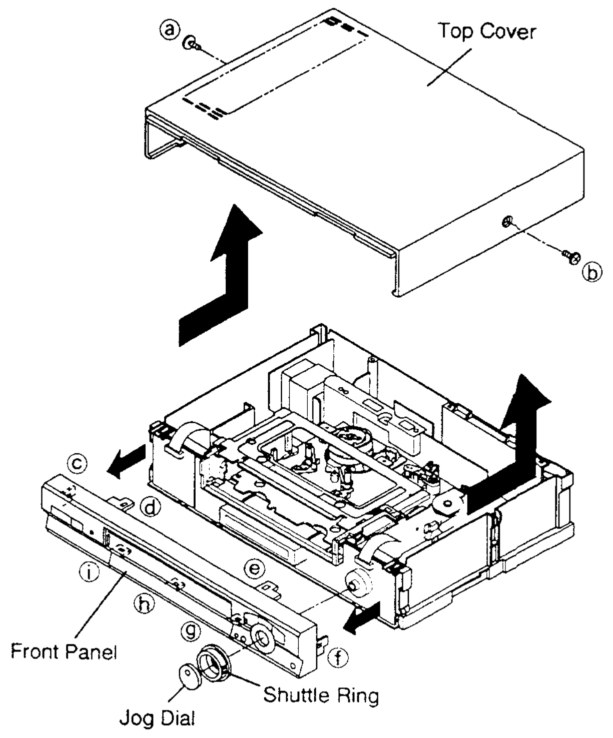


Fig. 1

3. Removal of Bottom Panel

① Remove five fastening screws (ⓐ~ⓔ) shown in Fig. 2.

② Push the two inside hooks (ⓕ and ⓖ), holding the Bottom Panel and slide the Bottom Panel toward the rear to remove it.

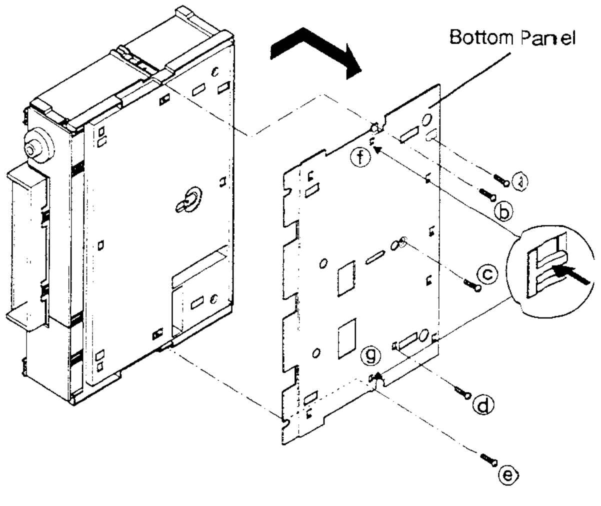


Fig. 2

4. Removal of Assy Deck

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Remove the three fastening screws (ⓐ, ⓑ and ⓒ) on the bottom of the set shown in Fig. 3.

③ Remove the five screws (ⓓ~ⓗ) holding the Assy Deck, shown in Fig. 4, and disconnect the connectors $\boxed{\text{MR}}$, $\boxed{\text{ML}}$, $\boxed{\text{MM}}$ and $\boxed{\text{ME}}$.
($\boxed{\text{MR}}$: except M50)

④ Slowly raise the Assy Deck upward to remove it.

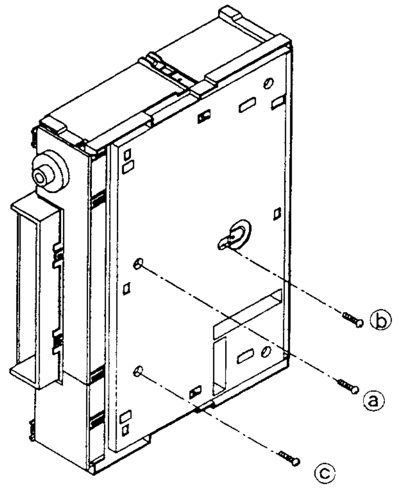


Fig. 3

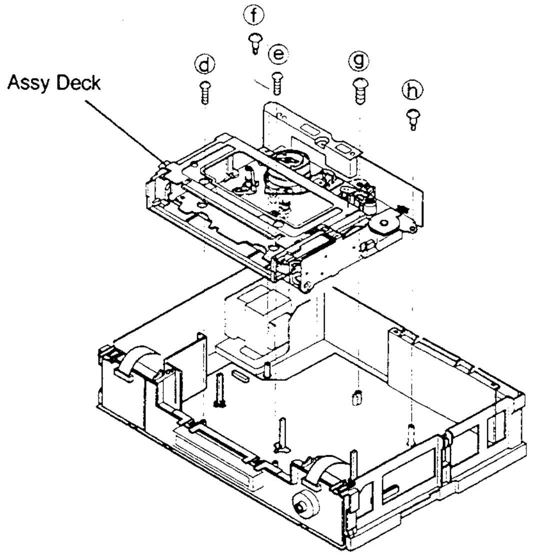


Fig. 4

5. Removal of Barrier

① Pull the part ⓐ of the barrier and remove it, as shown in Fig. 5.

＊ Caution in installation.

Insert the convex part of the barrier into the slit at the side of Assy Deck. Put the other end of the barrier in the inside of the partition.

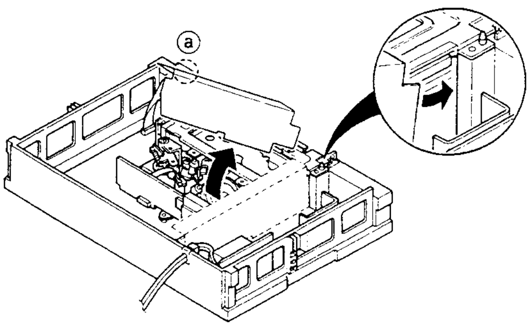


Fig. 5

HOW TO EXECUTE CIRCUIT BOARD SERVICE

CAUTION: BEFORE ATTEMPTING TO REMOVE OR REPAIR ANY PCB, UNPLUG THE POWER CORD FROM THE A.C. SOURCE.

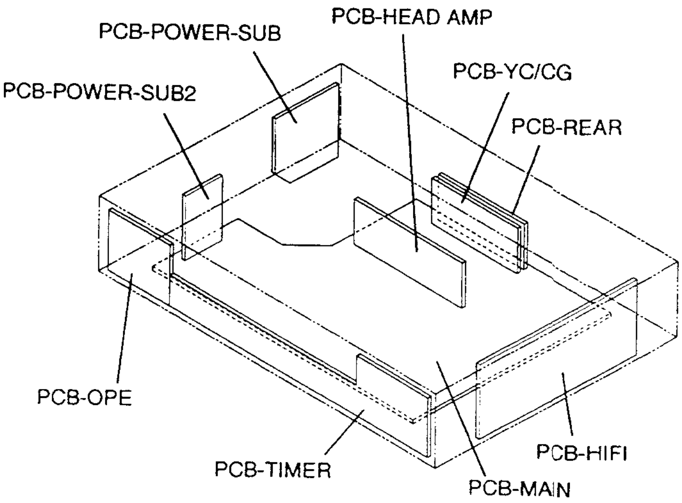

PCB-HEAD AMP
PCB-POWER-SUB
PCB-YC/CG
PCB-POWER-SUB2
PCB-REAR
PCB-OPE
PCB-HIFI
PCB-TIMER
PCB-MAIN

Fig. 6

Note:

- Take caution when removing flat cables to prevent any contact problem.
- Connect and disconnect the flat cables at right angles to the connector and make sure they are completely secured.
- After servicing the PCB, restore the flat cable and leads to their former state.

1.PCB-MAIN

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY. Servicing on the components side of the MAIN-PCB is partially possible.

② Remove the Front Panel, refer to Para. 2 of the DISASSEMBLY, and remove eight fastening screws referred to ②, ③ in Para. 4 of the DISASSEMBLY. (Do not disconnect the connector MR, ML, MM, ME.)
(MR: except M50)

③ Raise the front side of the Assy Deck upward as shown in Fig. 7 and support it with a screw driver, etc. Servicing on the components side is now possible.

④ If necessary, remove the Assy Deck refer to Para. 4 of the DISASSEMBLY. Remove one fastening screw (ⓐ) on the bottom and two fastening screws (ⓑ and ⓒ) on the Antenna Terminal Board shown in Fig. 8 and raise the PCB-MAIN upward to remove it.

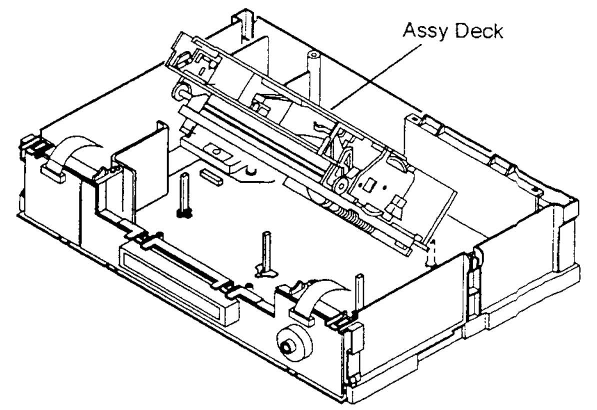


Fig. 7

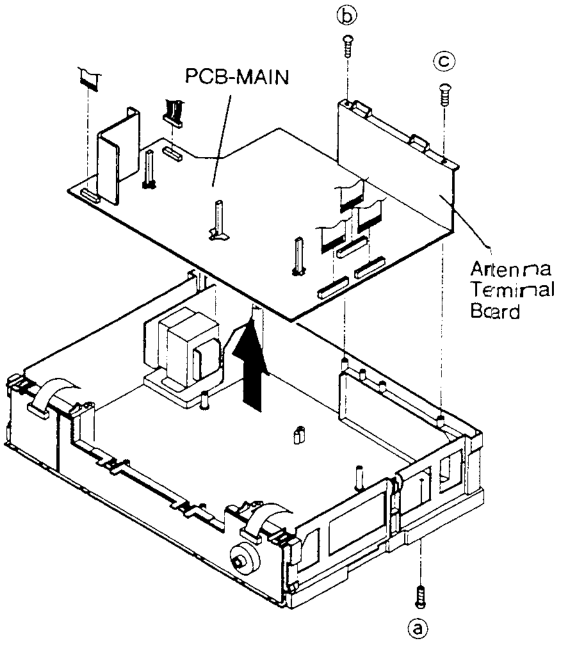

ⓑ
PCB-MAIN
ⓒ
Antenna
Terminal
Board
ⓐ

Fig. 8

2. PCB-REAR

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② If it is necessary to remove the PCB-REAR, comply with the following steps.

(1) Remove the PCB-MAIN referring to the preceding paragraph.

(2) Remove four screws (ⓐ,ⓑ,ⓒ and ⓓ), unfasten five catches (ⓔ~ⓘ) on the Antenna Terminal Board as shown in Fig.9, and remove the Antenna Terminal Board.

(3) Raise the PCB-REAR upward to remove it.

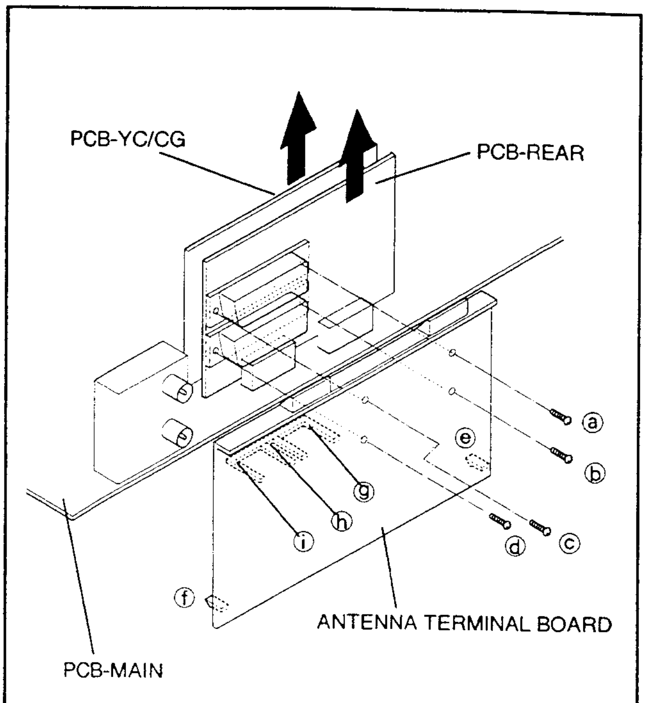


Fig. 9

3. PCB-YC/CG

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Raise the PCB-YC/CG upward to remove it as shown in Fig.9.

4. PCB-HIFI

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY. Servicing on the component side is possible.

② If it is necessary to remove the PCB-HIFI, comply with the following steps.

(1) Remove a screw (ⓐ) and unfasten two snaps (ⓑ and ⓒ) as shown in Fig.10.

(2) Disconnect the connectors ($\boxed{\text{HB}}$, $\boxed{\text{HC}}$) and raise the PCB-HIFI upward to remove it.

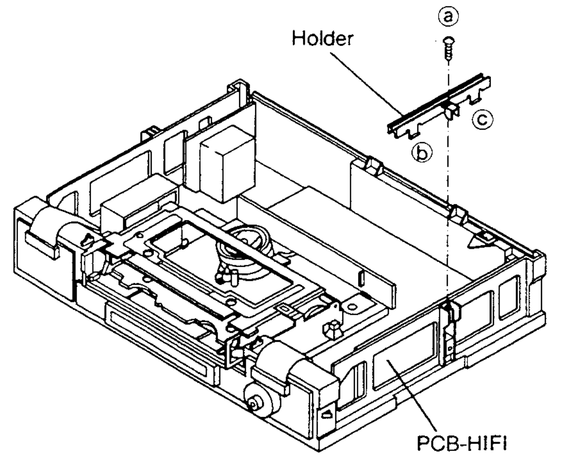


Fig. 10

5.PCB-TIMER/OPE

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Remove the Front Panel referring to Para. 2 of the DISASSEMBLY.

③ Remove one fastening screw (ⓐ) and five catches (ⓑ~ⓖ) shown in Fig.11 to remove the PCB-TIMER/OPE.

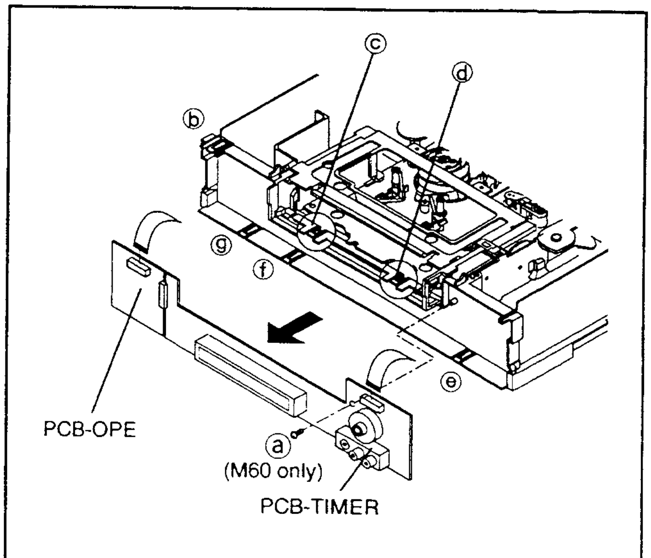


Fig.11

6.PCB-HEAD AMP

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY. Servicing on the copper side is possible.

② If necessary, remove the Assy Deck, refer to Para. 4 of the DISASSEMBLY. Raise the Shield Cover upward to remove it. Disconnect three terminals (ⓐ, ⓑ and ⓒ), remove three fastening screws (ⓓ, ⓔ and ⓕ) shown in Fig. 12 and disconnect the connectors of Head FE, A/C Head, and Motor CP to remove the PCB-HEAD AMP.

Note: (for HS-M50V(G), HS-M60V(G))
Remove three screws (ⓖ, ⓗ and ⓘ) shown in Fig. 12 and raise the shield-drum upward to remove it.

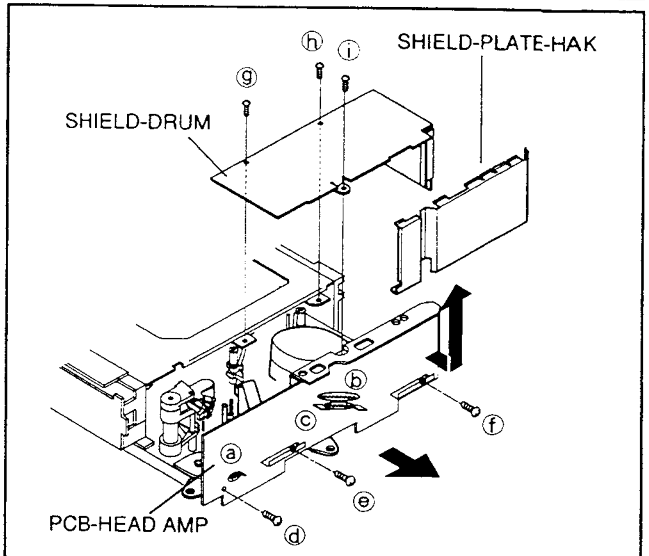


Fig.12

7. PCB-POWER-SUB

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Remove the holder of AC power cord from the Base Chassis shown in Fig. 13.

③ Disconnect the connectors: BB (for Power receptacle) MD on the PCB-POWER-SUB.

④ Remove one fastening screw (ⓐ) on the bottom shown in Fig. 13 and two screws (ⓑ and ⓒ : 669D221040) holding the transformer, and raise the PCB-POWER SUB to remove it.

8. PCB-POWER-SUB2

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Raise the PCB-POWER-SUB2 upward to remove it as shown in Fig.13.

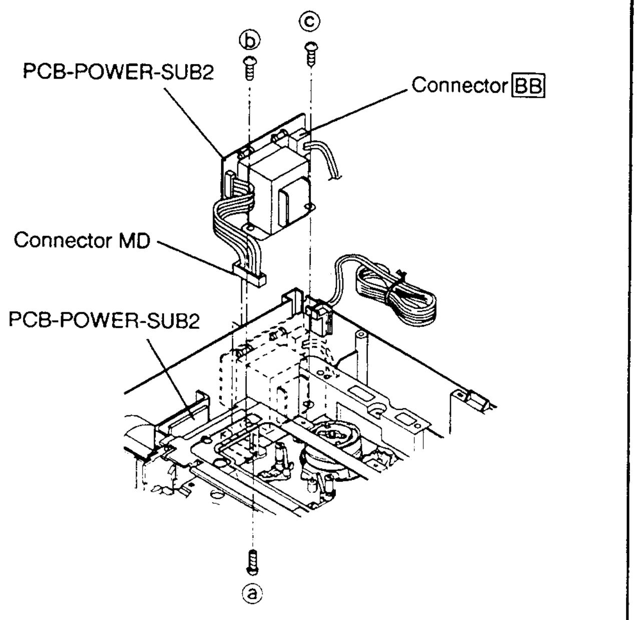
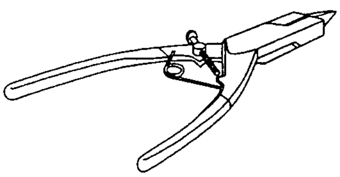
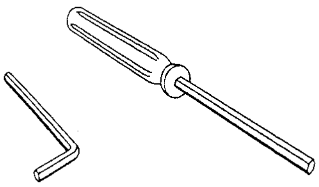
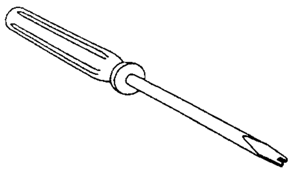
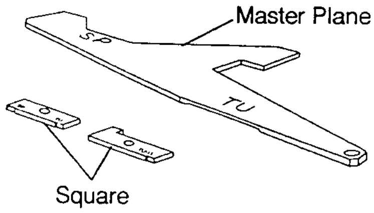
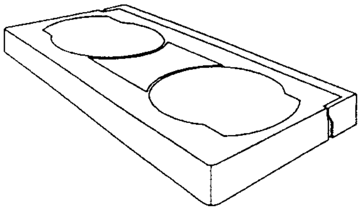
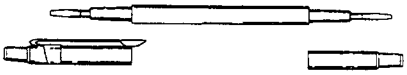
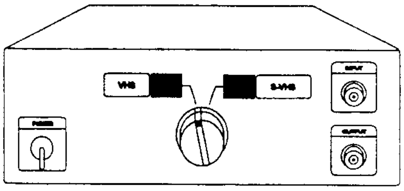
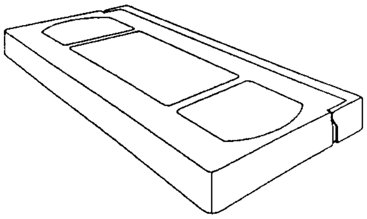


Fig. 13

MECHANICAL ADJUSTMENT TOOLS

	PURPOSE	METHOD
Grip ring fixer **(859C347050)** 	A tool for preventing the grip ring from opening excessively.	Opening the grip ring with the tips of this tool, install the grip ring on to the shaft.
Hex Keys (1.5mm)  **(859C259020)** **(859C259050)**	The hex keys are used for tightening or removing hexagonal socket head screws which fasten the guide rollers.	Insert the given size (1.5mm) hexagonal socket and turn.
Adjustment Driver **(859C259080)** 	For adjustment of guide rollers.	Carefully insert and adjust guide rollers.
Height adjusting Jig **• Master Plane** **(859C342020)** **• Square** **(859C341070)**  	The master plane and the square are used for measuring height and perpendicularity of the reel disk and Takeup guide arm.	The gauge is applied to the part being measured.
Back Tension Gauge **(859C345080)** 	The back tension gauge is used for measuring the tension of the tape on the supply side.	Load this gauge in the cassette housing and run in the play mode. Read the gauge indicator.
Cotton gloves	For changing, cleaning and handling of drum, heads and guides.	Use when handling all parts in the tape path.
Grease **PG641** **(859D055030)** **G** **(859D055050)**	Lubrication of various parts.	To be applied as specified.

ELECTRICAL ADJUSTMENT TOOLS

	PURPOSE	METHOD
Adjustment Driver (859C338000) 767-M 	The adjustment driver is intended to adjust variable resistors, trimmers, transformers etc. in the circuitry.	Select a tip suitable for the particular head of the component concerned and adjust.
Carrier Checker (859C346050) 	Used for the adjustment or inspection of the carrier set deviation.	Use in conjunction with the oscilloscope. For detail refer to the service manual.
Alignment Tape **(PS-2 :859C339010)** **(PM6KH3 :859C339030)** **(PM3KE6(CH1) 25 :859C568050)** **(PMX :859C568070)** 	Standard signals (VHS Standard) are recorded on the alignment tape and reproduced when required in the adjustment of Y/C circuit, audio circuit and interchangeability alignment.	Install and run in the play mode, the same as for an ordinary tape.
Record Current Adjustment Jig (859C347080)	For Y/C Recording Level and Hi-Fi FM Recording Level.	For Y/C Recording Level and Hi-Fi FM Recording Level adjustment.

HOW TO INITIALIZE E²PROM

E²PROM is initialized before shipping, so E²PROM must be initialized when replaced.

Initialize E²PROM following the step below.

1. Set the VCR to "Set the clock" mode.
2. Push COUNTOR RESET button on the remote hand unit for 8 seconds.

PROVIDING DUMMY SIGNAL FOR SERVICE POSITIONS [B] AND [C]

Refer to page 10 for Service Position Information.

■ Function check for PB, REC, FF and REW Mode

- Cover the Start and End Sensors with an Infra-red opaque material e.g. black vinyl tape etc..
- The reel sensor must provide input "rotating" signals to the microprocessor. To provide a dummy reel rotating signal, connect ③ pin of TP2AH(Drum FF) to TP5J8 on PCB-MAIN.

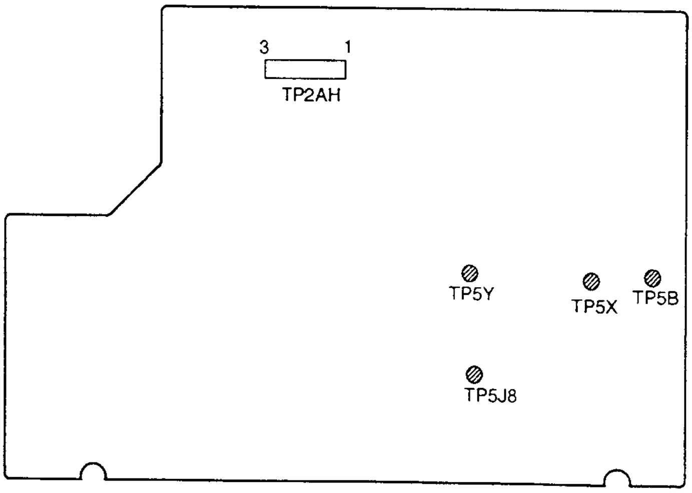
NOTE:

1) Because the Start and End sensors are disabled there will be a risk of END of TAPE damage in REW and FF Modes.
2) When TAPE EJECT is necessary, disconnect the mains supply and reinstall the DECK ASSY to the Service Position [A], restore power then EJECT the tape.

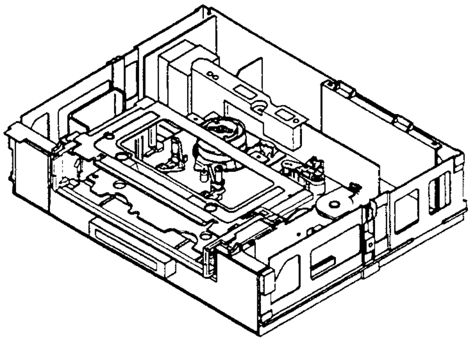
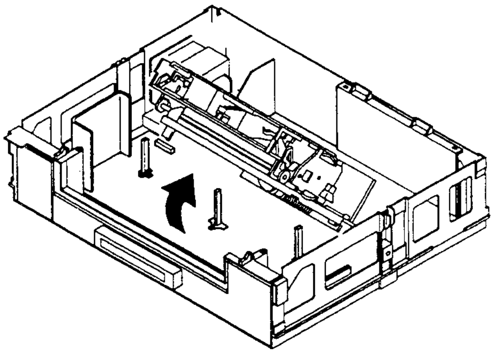
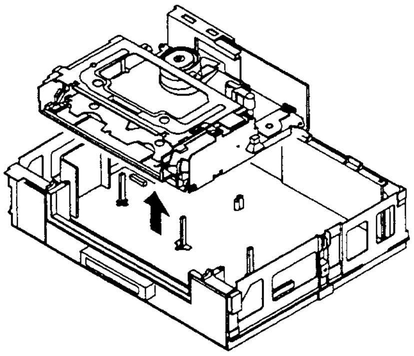
■ Record Protection Method

- To protect TEST TAPE(s) from accidental Record (erasure) during testing, connect TP5B (STBY 5V) to TP5K4 on PCB-MAIN .

PCB-MAIN(Component side)



When replacing parts or performing service adjustments, place the unit in the service positions shown below. Refer to page 9 for additional information about Service Positions.

Service Position	Service Item
(A) 	• Remove the top cover and the front panel. (1) Worn parts on the deck(upper drum, pinch roller assembly, A/C head, and FE head) can be replaced. (2) Checks at test points may be made to isolate a problem to a specific circuit.
(B) 	• Remove the screw holding the deck, raise the front side of the deck upward, and hold it with a screw driver etc. (1) Worn parts on the deck(reel belt, idler assembly, and capstan motor) can be replaced. (2) The performance of the deck can be checked. • The REC safety switch does not operate in position(B). • Set the deck to service position (A) and load the cassette tape. Then turn the power off and set the deck to service position (B). Cover the start and end sensors and short-circuit test points ③ pin of TP2AH to TP5J8. Turn the power on and play the tape. (Do not use the start or end portion of the tape.) • If it is necessary to eject the tape, turn the power off and set the deck to the service position (A). Turn the power on again and eject the tape.
(C) 	• Remove the screw holding the deck to disconnect the deck from the connector. (1) Parts on the deck(drum assembly, PCB-HEAD-AMP, loading belt etc.) can be replaced. (2) The EE picture can be displayed by short-circuiting TP5X to TP5Y. (Short-circuit before turning the power on.) (Playback and recording operation can not be checked.)

Electrical Adjustments

Perform only the alignments required. If proper equipment is not available,do not attempt an alignment.

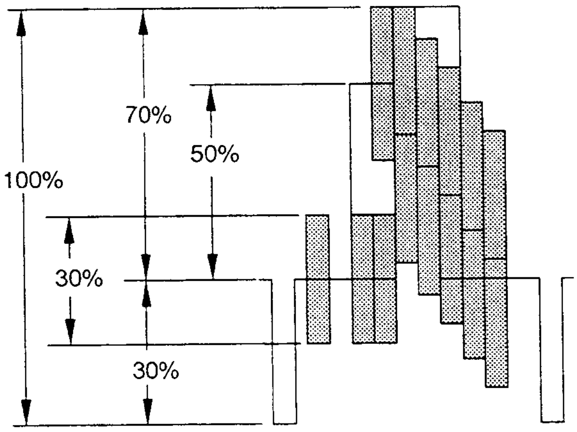
Measuring equipment and Jigs

- Oscilloscope (Unless otherwise specified in particular, use it at 10:1 probes.)
- Signal generator
- Frequency counter
- Audio tester
- Direct current voltmeter
- Electrical tools

Test Signal

Colour bar signal

In this manual, unless otherwise specified in particular, use colour bar signal in specifications below.

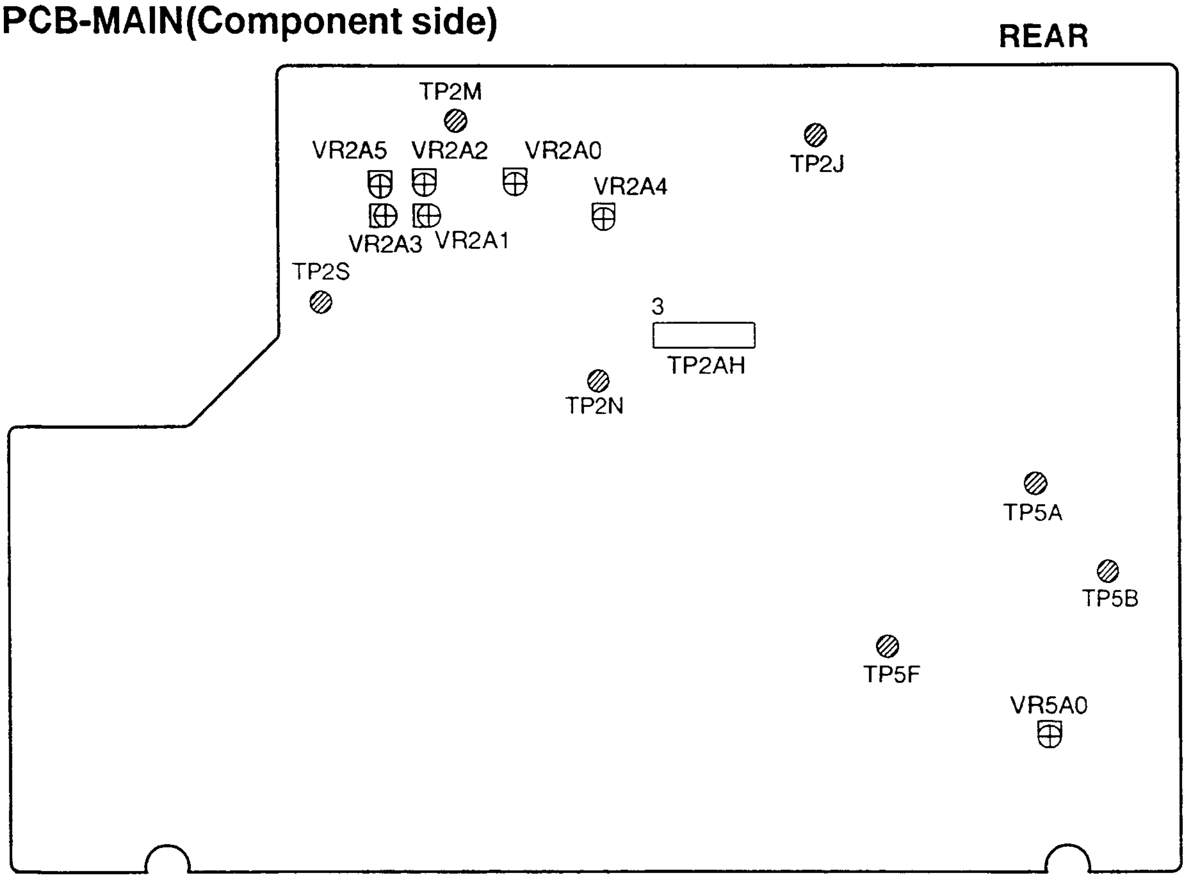


PAL

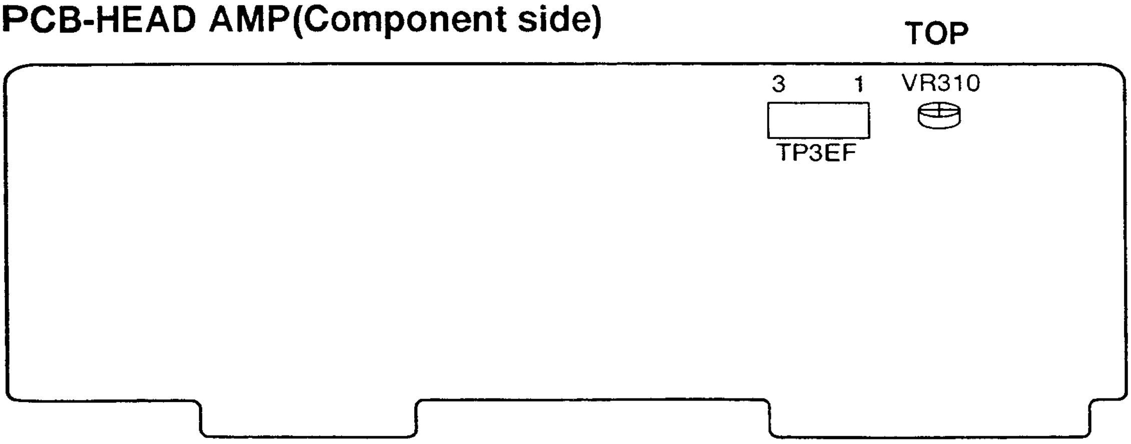
Split-Field colour bar(with 100% window)

LOCATIONS

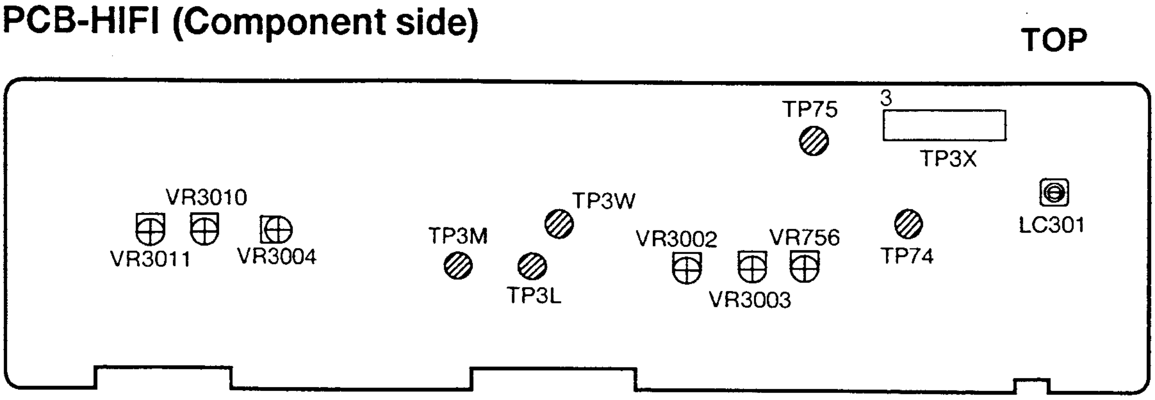
PCB-MAIN(Component side)


REAR
TP2M
VR2A5
VR2A2
VR2A0
TP2J
VR2A4
VR2A3
VR2A1
TP2S
3
TP2AH
TP2N
TP5A
TP5B
TP5F
VR5A0

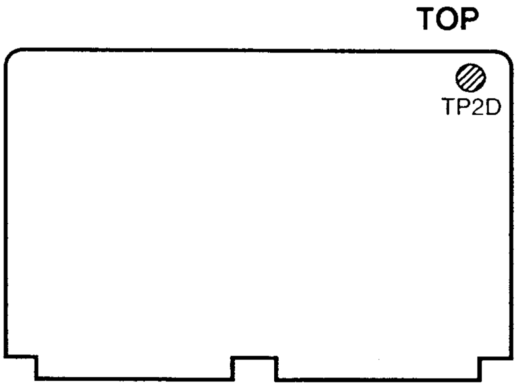
PCB-HEAD AMP(Component side)


TOP
3
1
VR310
TP3EF

PCB-HIFI (Component side)


TOP
TP75
3
TP3X
VR3010
TP3W
LC301
TP3M
VR3002
VR756
VR3011
VR3004
TP74
TP3L
VR3003

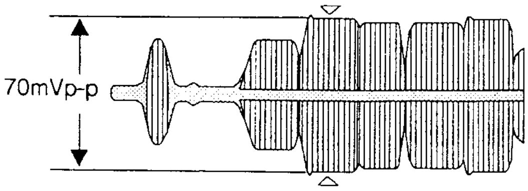
PCB-YC/CG (Component side)



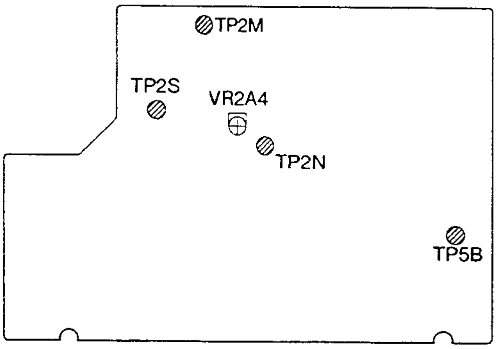
[Y/C signal circuit] 5.Y/C Recording Level	**Adjustment purpose**	Set the record level of the video and chroma signals.
	Symptom when incorrectly adjusted	Low luminance signal S/N ratio, beats, colour bounding or flicker.

Measuring instrument and condition		VCR set up condition	
Oscilloscope(Probe 1:1)		Input signal	RF signal (PAL colour bar)
Test point	TP2N	Using tape	—
EXT trigger	TP2S	VCR condition	STOP
Measurement range	DIV 10mV TIM 10 μs	Using Jig	—

1. Supply an RF signal(PAL colour bar).
2. Observe the waveform at TP2N.
3. Short-circuit TP2M and TP5B(SW5V).
4. Adjust VR2A4 so that the amplitude of cyan is 70mVp-p.



PCB-MAIN (Component side)

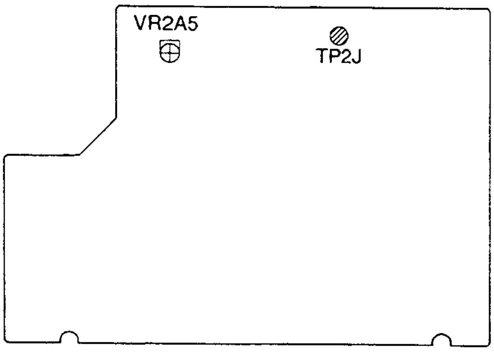


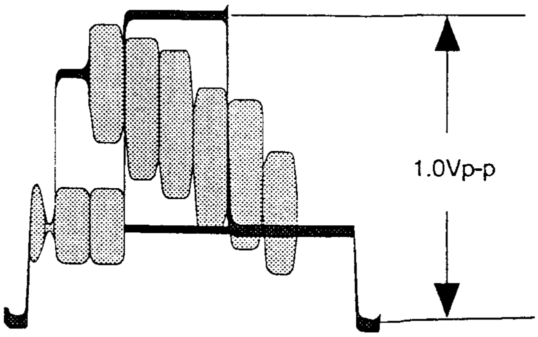
[Y/C signal circuit] 6.Playback Video Output Level	**Adjustment purpose**	Video output level during playback.
	Symptom when incorrectly adjusted	Colour signal is not correctly reproduced.

Measuring instrument and condition		VCR set up condition	
Oscilloscope		Input signal	—
Test point	TP2J	Using tape	Alignment tape (PS2, colour bar)
EXT trigger	—	VCR condition	Playback
Measurement range	DIV 20mV TIM 10 μs	Using Jig	—

1. Be certain that nothing is connected to the VIDEO OUT terminal.
2. Playback an alignment tape(PS2, colour bar).
3. Observe the waveform at TP2J.
4. Adjust VR2A5 so that the amplitude of the waveform is 1.0Vp-p.

PCB-MAIN (Component side)





[Audio circuit] 7.Audio Bias Level	**Adjustment purpose**	Audio bias level during recording.
	Symptom when incorrectly adjusted	Poor audio high frequency response or distortion.

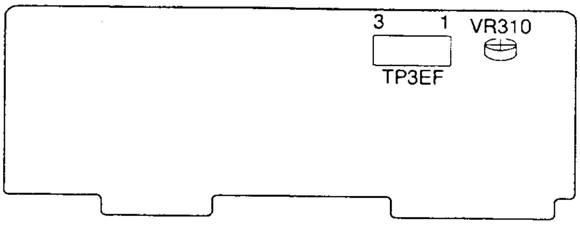
Measuring instrument and condition		VCR set up condition	
Audio tester		Input signal	—
Test point	TP3EF pin ①, pin ③	Using tape	A blank tape
EXT trigger	—	VCR condition	SP REC
Measurement range	—	Using Jig	High pass filter

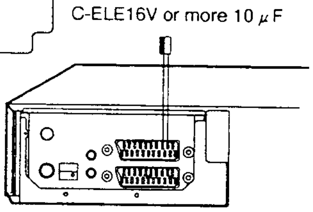
1. Supply no signal.
2. Short-circuit EURO AV socket pin ② (AUDIO IN) and pin ④ (GND) using an electrolytic capacitor (16V or more 10 μF).
3. Set the VCR to SP REC mode.
4. Observe the audio level at TP3EF pin ① and pin ③ with an Audio Tester using a high pass filter.
5. Confirm that the monitor TV etc. does not affect the indication of the audio tester and then adjust VR310 so that the level is 2.6mVr.m.s.

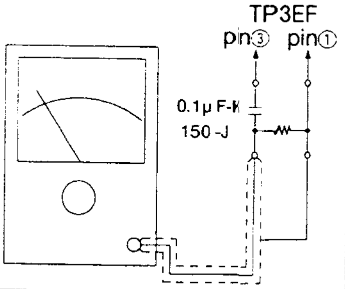
Note 1:
Be careful that the audio tester housing does not touch the VCR chassis.

Note 2:
Never set the VCR to Play mode with the audio tester connected.
(The audio amplifier will be over loaded.)

PCB-HEAD AMP (Component side)





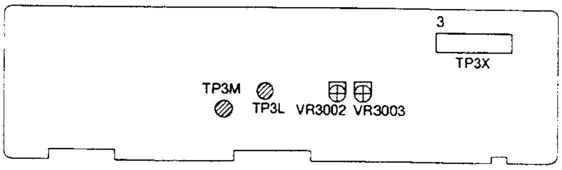


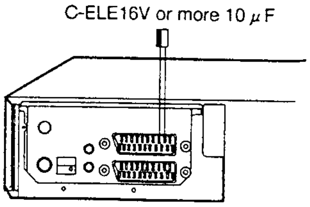
[Hi-Fi Audio circuit] 8.VCO	**Adjustment purpose**	Set up of FM carrier frequency for Hi-Fi audio.
	Symptom when incorrectly adjusted	Buzz only.

Measuring instrument and condition		VCR set up condition	
Frequency counter		Input signal	—
Test point	TP3L TP3M	Using tape	—
EXT trigger	—	VCR condition	STOP
Measurement range	—	Using Jig	—

1. Set the CHANNEL position to "EXT"
2. Set the MONITOR button on the remote hand unit to "STEREO" mode.
3. Set the MIX switch to "OFF" position.
4. Short-circuit EURO AV socket pin ② (AUDIO IN) and pin ④ (GND) using an electrolytic capacitor (16V or more 10 μF).
5. Observe the frequency at TP3L.
6. Ajust VR3002 so that the frequency is 1.400MHz±3kHz.
7. Observe the frequency at TP3M.
8. Adjust VR3003 so that the frequency is 1.800MHz±3kHz.

PCB-HIFI (Component side)



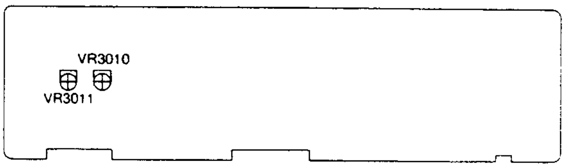


【 Hi-Fi Audio circuit 】 9.EE output Level (HS-M60V(G)only)	**Adjustment purpose**	Output level of audio signal STOP mode.
	Symptom when incorrectly adjusted	Too small or too big sound.

Measuring instrument and condition		VCR set up condition	
Audio tester		Input signal	1kHz,–8dBs
Test point	AUDIO OUT terminal (L-CH,R-CH)	Using tape	—
EXT trigger	—	VCR condition	STOP
Measurement range	—	Using Jig	—

1. Set the CHANNEL button to “EXT” position.
2. Set the MONITOR button on the remote hand unit to “STEREO” mode.
3. Set the MIX switch to “OFF” position.
4. Set the REC-LEVEL-VR to centre position.
5. Supply the signal(1kHz,–8dBs) to the AUDIO IN terminal (L-CH, R-CH).
6. Observe the audio level at AUDIO OUT terminal (L-CH).
7. Adjust VR3010 so that the L-CH audio level is –6dBs.
8. Observe the audio level at AUDIO OUT terminal (R-CH).
9. Adjust VR3011 so that the R-CH audio level is –6dBs.

PCB-HIFI (Component side)

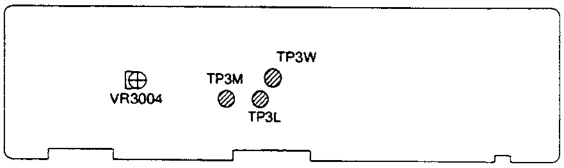


【 Hi-Fi Audio circuit 】 10. B.P.F	**Adjustment purpose**	Set the characteristic of the filter to separate the FM signals of 1.3MHz and 1.7MHz in playback mode.
	Symptom when incorrectly adjusted	Buzz in the sound.

Measuring instrument and condition		VCR set up condition	
Oscilloscope		Input signal	1.6MHz sinewave
Test point	CH-1: TP3L CH-2: TP3M	Using tape	DUMMY tape
EXT trigger	—	VCR condition	Playback
Measurement range	DIV 5mV TIM 5ms	Using Jig	—

1. Supply a sine wave (1.6MHz/250mVp-p) to TP3W.
2. Playback a dummy tape.
3. Observe the waveform at TP3L and TP3M.
4. Adjust VR3004 so that the amplitude of the waveforms at TP3L and TP3M are the same level.

PCB-HIFI (Component side)

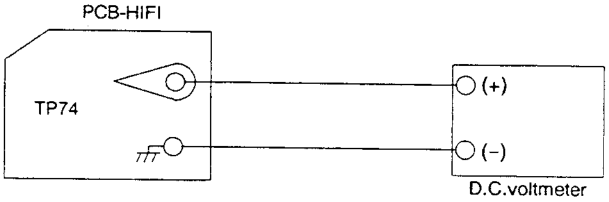


[Dual Audio circuit] 11.Audio DET Coil	**Adjustment purpose**	Adjustment for audio det coils.
	Symptom when incorrectly adjusted	Sound signal will distort.

Measuring instrument and condition		VCR set up condition	
D.C.Voltmeter		Input signal	RF signal (Normal sound signal)
Test point	TP74	Using tape	—
EXT trigger	—	VCR condition	STOP
Measurement range	—	Using Jig	—

1. Supply an normal mode RF signal (400Hz).
2. Observe the voltage at TP74.
3. Adjust LC301 so that the D.C.voltage at TP74 is 5.25±0.1V.

PCB-HIFI (Component side)



[Dual Audio circuit] 12.Channel Separation	**Adjustment purpose**	Positioning of audio separation.
	Symptom when incorrectly adjusted	Mixing audio separation.

Measuring instrument and condition		VCR set up condition	
Oscilloscope		Input signal	RF signal (Stereo sound)
Test point	TP75	Using tape	—
EXT trigger	—	VCR condition	STOP
Measurement range	DIV 20mV TIM 2ms	Using Jig	—

1. Supply a Stereo mode RF signal.

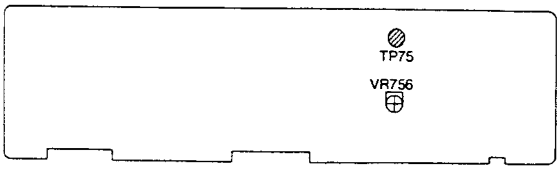
PILOT	50% AM MODULATION
RIGHT CH	1kHz,100% FM MODULATION
LEFT CH	NO MODULATION
RF INPUT	70dBμ(75Ω LOAD)

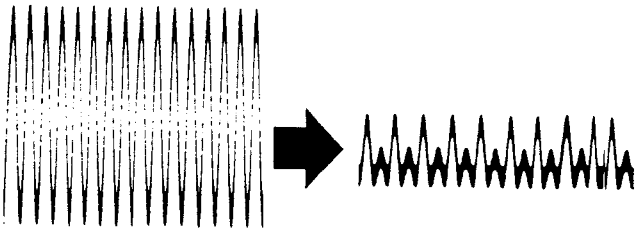
2. Observe the waveform at TP75.
3. Adjust VR756 so that the audio output signal at L-CH is minimum.

Note:

This adjustment should be done precisely because it determines the separation.

PCB-HIFI (Component side)



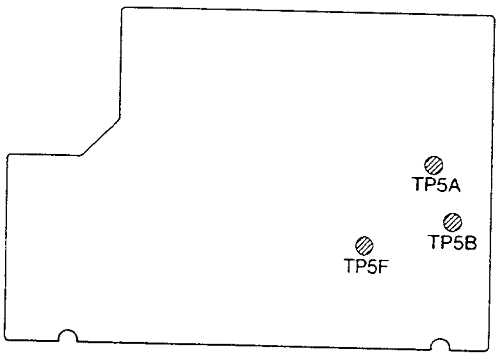


【 Timer circuit 】 13. Clock Frequency Correction	**Adjustment purpose**	Accuracy of clock.
	Symptom when incorrectly adjusted	Poor clock accuracy.

Measuring instrument and condition		VCR set up condition	
Frequency Counter		Input signal	—
Test point	TP5F	Using tape	—
EXT trigger	—	VCR condition	Power off
Measurement range	—	Using Jig	—

1. Short-circuit TP5A to TP5B.
2. Observe the frequency at TP5F.
3. Be certain that the frequency is between 262.1000 ~ 262.1882kHz.
4. Use the number buttons on the remote hand unit to enter the last three digits of the frequency counter reading (262.1ⓐⓑⓒkHz). Enter the digits in ⓐⓑⓒ sequence.
5. Push the REC button on a remote hand unit.
6. Open circuit TP5A and TP5B.

PCB-MAIN (Component side)



MECHANICAL ADJUSTMENT AND REPLACEMENT

1.Cleaning of Deck

The following parts require cleaning whenever serviced to maintain satisfactory performance.

1-1 Video Head

A.Clean the video heads by the following method. Dust and other foreign objects on the video heads disturbs the normal playback picture:

Dampen a video head cleaning cloth with alcohol. Hold the cloth against the drum and turn the drum slowly counterclockwise to clean.

NOTE:

Do not directly touch the head attached to the upper drum. The head is very hard but brittle to impact,especially in the vertical direction.

Do not apply force in the vertical direction.

B.Allow residual alcohol to dry thoroughly before running tape. Otherwise, the liquid may stick to and damage the tape.

1-2 Tape Transport (Refer to Fig. 1-1.)

Clean the following parts of the tape transport.

1. Tension arm
2. Supply guide pole
3. FE head
4. ASSY IMPEDANCE ROLLER
5. Supply slant pole
6. Upper and lower drum
7. Takeup slant pole
8. A/C head
9. Takeup guide pole
10. Capstan shaft
11. Takeup guide arm

A.Clean the tape transport using gauze dampened with alcohol,except the supply guide roller and takeup guide roller. If Guide rollers and pinch roller are stained with dust,clean them with dry gauze or replace them with new parts.

B.Allow residual alcohol to dry thoroughly before running a tape. Otherwise the liquid may stick to and damage the tape.

1-3 Reel Disk Drive System

Clean the reel disk braking surfaces and the reel belt.

A.Clean the reel disk braking surfaces with gauze dampened with alcohol.

- After the alcohol dries completely, perform "Adjustment of Back Tension and Tension Position" (Item 3-1).

B. If theReel belt is stained with dust,clean it with dry gauze or exchange it for a new part.

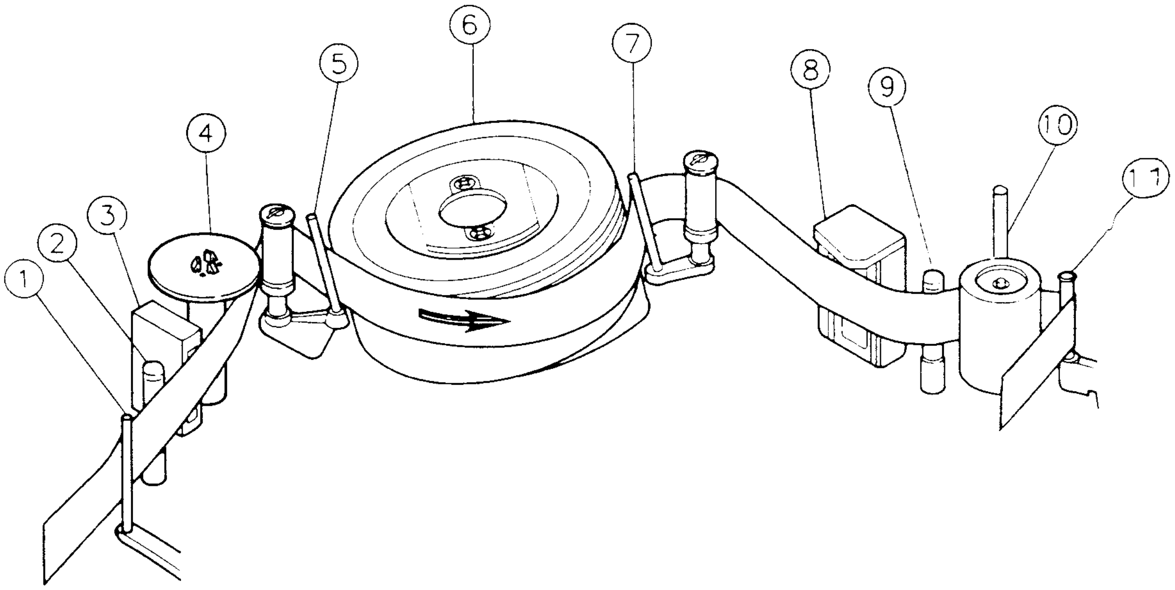


Fig. 1-1

2. Replacement of Major Parts

2-1 Cassette Housing

(Removal)

① Set the VCR to the eject mode.

② Remove the top cover and the front panel.

③ Unfasten the clamp holding the lead of the loading motor, which is attached to the side plate of the cassette housing. Unscrew the two cassette housing fastening screws(ⓐ and ⓑ). Slowly raise the cassette housing in the direction shown by the arrow.
(Refer to Fig. 2-1-1.)

(Installation)

① Make sure that the holes (matching mark M) on the body and cogwheel of the mode switch align with each other as shown in Fig. 2-1-2. At the same time confirm that the hole of the gear pinch aligns with the matching marks of the gear joint J and the ▽ mark on the mode switch cogwheel,refer to Fig. 2-19-5. This indicates the J deck is in the EJECT mode.

② If the deck is not completely set to the eject mode, turn part A of the pulley worm J by hand to set the eject mode. (Refer to Fig. 2-1-4)
Turn in the direction a ······ for loading
Turn in the direction b ······ for unloading

③ Slowly lower the cassette housing onto the main plate of the deck.

④ Make sure the record safety lever enters between the insert guide of the cassette housing and the shaft as shown in Fig. 2-1-3. Align the four points(ⓒ, ⓓ, ⓔ and ⓕ), located on the bottom of the housing with the matching holes in the deck. Secure the cassette housing on the deck with the two screws(ⓐ and ⓑ).
(Refer to Fig. 2-1-1.)

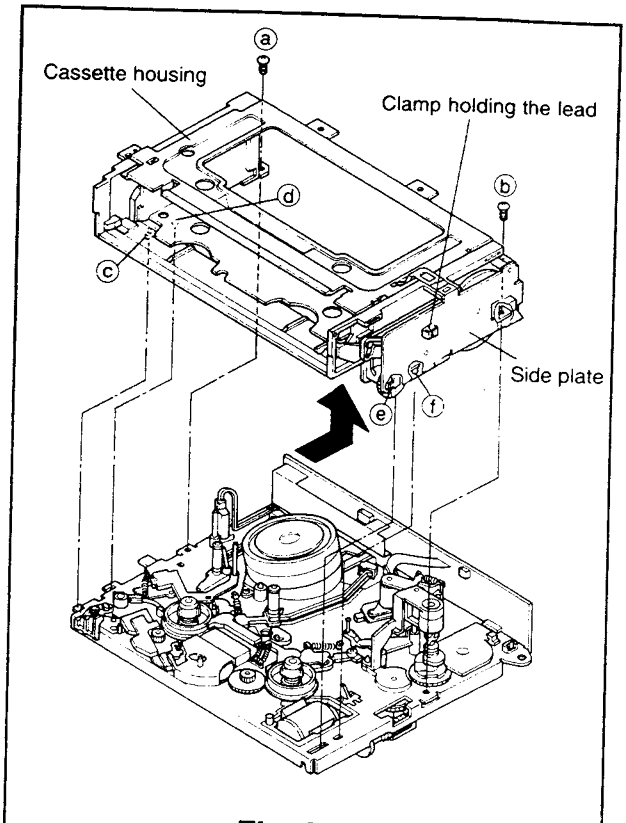

ⓐ
Cassette housing
Clamp holding the lead
ⓑ
ⓓ
ⓒ
Side plate
ⓔ
ⓕ

Fig. 2-1-1

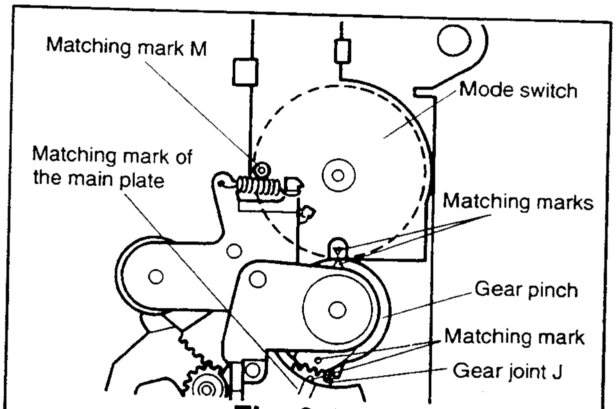

Matching mark M
Mode switch
Matching mark of the main plate
Matching marks
Gear pinch
Matching mark
Gear joint J

Fig. 2-1-2

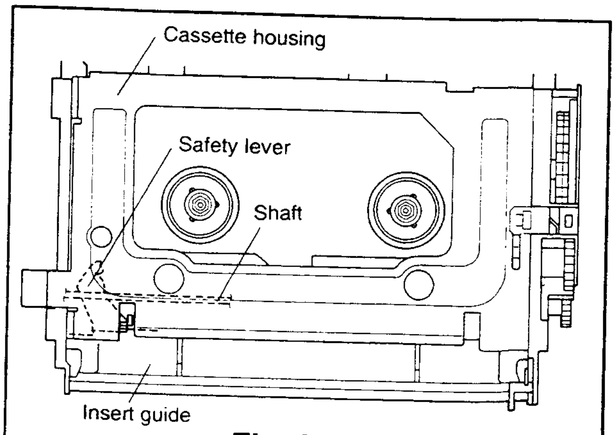

Cassette housing
Safety lever
Shaft
Insert guide

Fig. 2-1-3

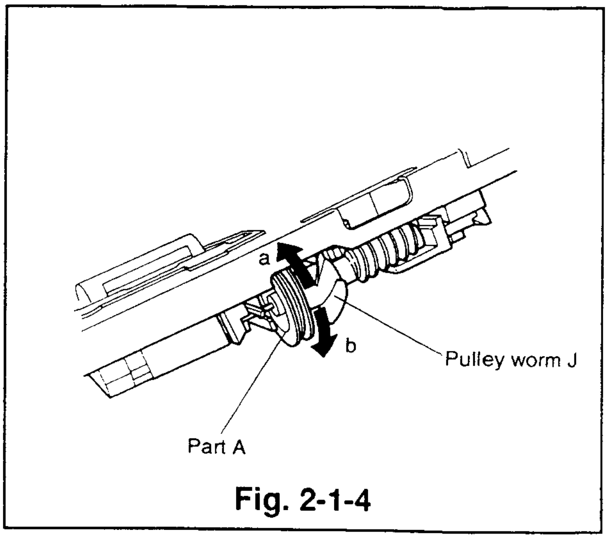


Fig. 2-1-4

2-2 Sense Gear, Drive Gear, Takeup Arm, and Arm Spring(TU)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)
② Unfasten the four catches(ⓐ, ⓑ, ⓒ and ⓓ) as shown in Fig. 2-2-1 and remove the side plate.
③ Remove the sense gear.
④ Pull the lock levers on both the supply and takeup side, shown in Fig. 2-6-1, in the direction shown by the arrow to shift the bottom plate to the position shown in Fig. 2-6-2.
⑤ Remove the takeup arm.
⑥ Turn and pull the drive gear in the direction shown by the arrow to remove it from the sense gear as shown in Fig. 2-2-3.
⑦ Remove the arm spring(TU) from the takeup arm as shown in Fig. 2-2-4.

(Installation)

① Apply the grease(G)[859D055050] to the area of the new takeup arm shown in Fig. 2-2-2 and 2-2-4.
② Apply the grease(G)[859D055050] to the area shown in Fig. 2-2-5 of the new sense gear.
③ Place the clip spring onto the drive gear hooking one end under the catch as shown in Fig. 2-2-5. Install the sense gear unto the drive gear so that hole A aligns with hole B. Hold the sense gear while turning the drive gear clockwise, in so doing engage the other end of the clip spring with the catch of the sense gear. The projection A of the sense gear must enter the hole B of the drive gear.
④ Ensure the spring action is effective by holding the sense gear and turning the drive gear slightly clockwise, observing whether the drive gear returns when released.

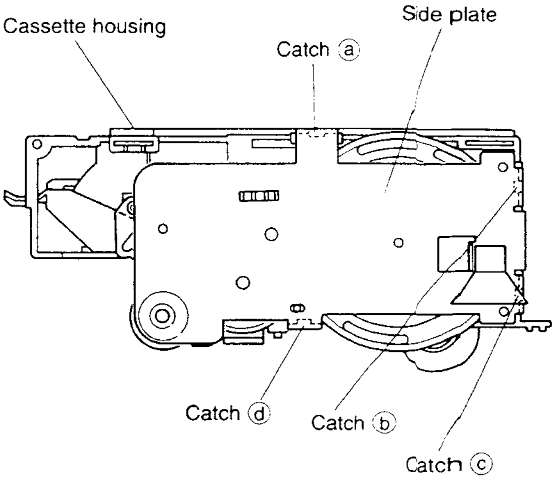


Fig. 2-2-1

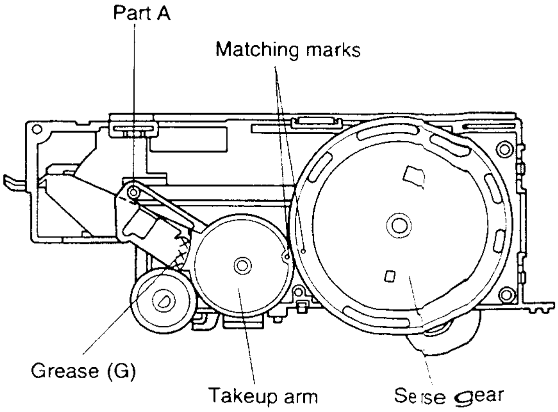


Fig. 2-2-2

⑤ Install the takeup arm so that the shaft attached to the bottom plate enters between the takeup arm and takeup spring after the bottom plate has been moved as shown in Fig. 2-6-2.

Note: Install the takeup arm so that the engaging point between the supply arm and the gear-S and that between the takeup arm and the gear-T are symmetrical as shown in Fig. 2-4-1.

⑥ Shift the bottom plate back to the eject position and install the sense gear so that the matching marks of the sense gear and the takeup arm align to each other as shown in Fig. 2-2-2.

⑦ Install the side plate.

⑧ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

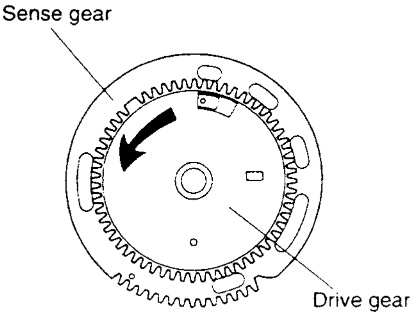

Sense gear
Drive gear

Fig. 2-2-3

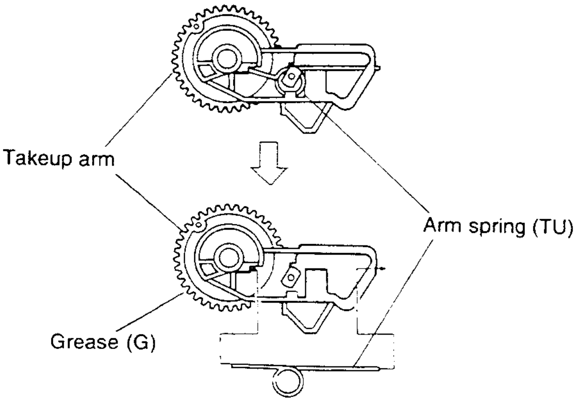

Takeup arm
Arm spring (TU)
Grease (G)

Fig. 2-2-4

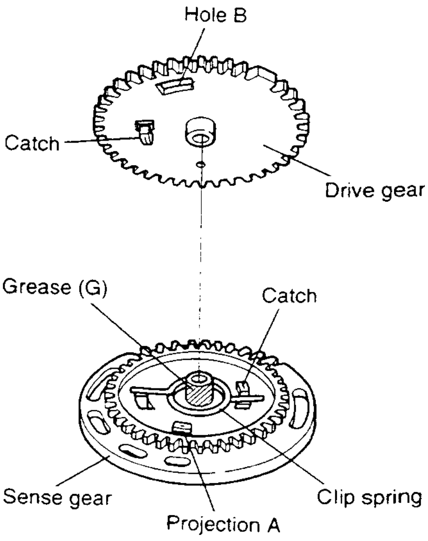

Hole B
Catch
Drive gear
Grease (G)
Catch
Sense gear
Projection A
Clip spring

Fig. 2-2-5

2-3 Door Arm

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the side plate, sense gear, and takeup arm. (Refer to Para. 2-2 for the removal method.)

③ Unfasten the catch shown in Fig. 2-3-1 to remove the door arm. (The simple way is to pull the door arm at the same time as unfastening the catch.)

(Installation)

① Fix the door arm to the shaft A shown in Fig. 2-3-1 and secure it with the catch so that the parts A and B are inside of the cassette housing as shown in Fig. 2-3-2.

② Install the takeup arm, the sense gear, and the side plate. (Refer to Para. 2-2 for the installation method.)

③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

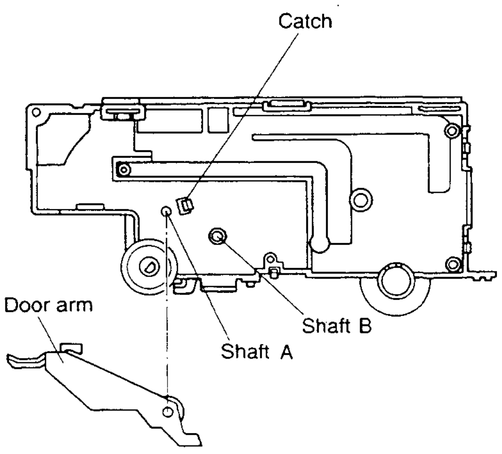


Fig. 2-3-1

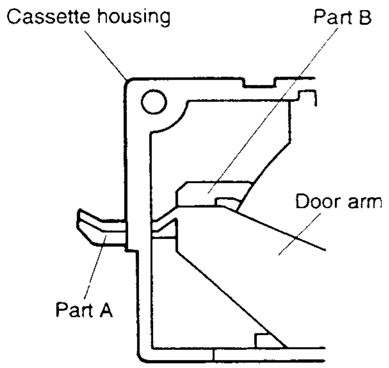


Fig. 2-3-2

2-4 Gear S and Gear T

(Removal)

① Follow the removal method in Items ① to ⑤ of Para. 2-2.

② Unfasten the catch fastening the gear T from the inside of the cassette housing to remove the FL shaft to which the gear S and T are attached.(Refer to Fig. 2-4-2)

③ Pull out the gear S and T from the FL shaft.

(Installation)

① Fix the gear S and T to the FL shaft.

② Install the FL shaft, first at the end attached to the gear T and then at the end to the gear S.

③ Follow the installation method in Item ⑤ to ⑧ in Para. 2-2.

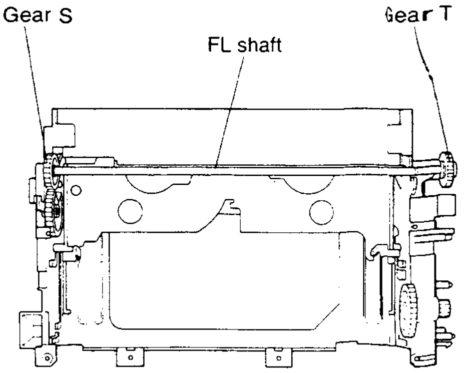


Fig. 2-4-1

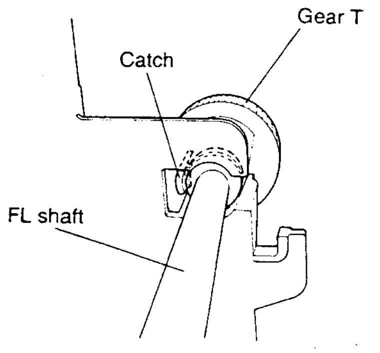


Fig. 2-4-2

2-5 Wheel Gear

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the side plate and sense gear. (Refer to Para. 2-2 for the removal method.)

③ Unfasten the catch shown in Fig. 2-5-1 to remove the wheel gear.

(Installation)

① Install the wheel gear on the position shown in Fig. 2-5-1 from the inside of the cassette housing.

② Install the sense gear and side plate. (Refer to Para. 2-2 for the installation method.)

③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

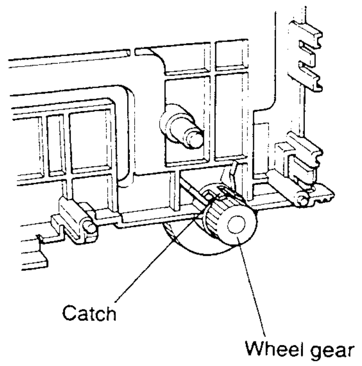


Fig. 2-5-1

2-6 Supply Arm and Arm Spring(SP)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the side plate.(Refer to Item ② of Para. 2-2 for the removal method.)

③ Remove the sense gear.(Refer to Item ③ of Para. 2-2 for the removal method.)

④ Pull the lock levers on both the supply and takeup side, shown in Fig. 2-6-1, in the direction shown by the arrow to shift the bottom plate to the position shown in Fig. 2-6-2.

⑤ Remove the takeup arm. (Refer to Item ⑤ of Para. 2-2 for the removal method.)

⑥ Pull part A, fixed to the supply arm, in the direction shown by the arrow to remove the bottom plate. (Refer to Fig. 2-6-3.

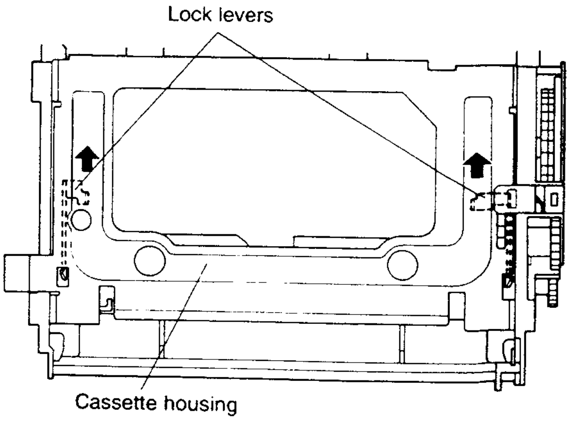


Fig. 2-6-1

⑦ Turn the supply arm in the direction shown by the arrow to shift part B, shown in Fig. 2-6-4, so that it aligns with the catch. Unfasten the catch to remove the supply arm.

⑧ Detach the arm spring from the supply arm as shown in Fig. 2-6-5.

(Installation)

① Attach the arm spring to the supply arm as shown in Fig. 2-6-5.

② Install the supply arm in the position shown in Fig. 2-6-4. (Align the catch with the part B of the supply arm.)

③ Insert the bottom plate so that the part A of it enters between the supply arm and the supply spring as shown in Fig. 2-6-3. Then install the bottom plate so that part C of it in the right position as shown in Fig. 2-6-6.

④ Follow the installation method in Item ⑤ to ⑧ in Para. 2-2.

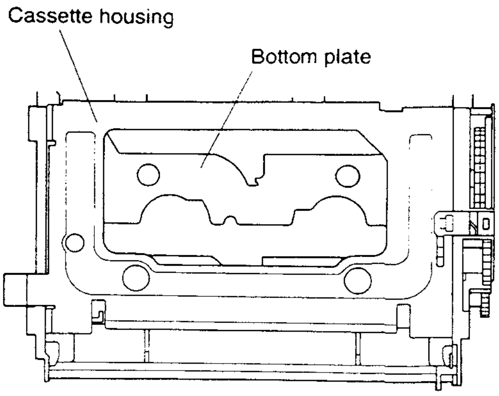

Cassette housing
Bottom plate

Fig. 2-6-2

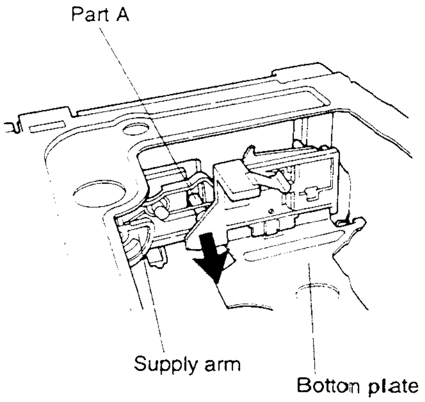

Part A
Supply arm
Botton plate

Fig. 2-6-3

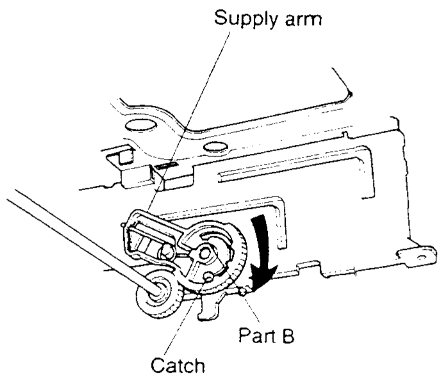

Supply arm
Part B
Catch

Fig. 2-6-4

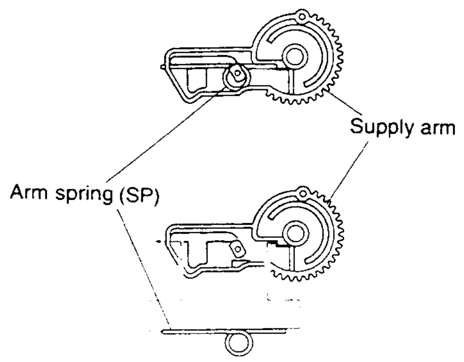

Supply arm
Arm spring (SP)

Fig. 2-6-5

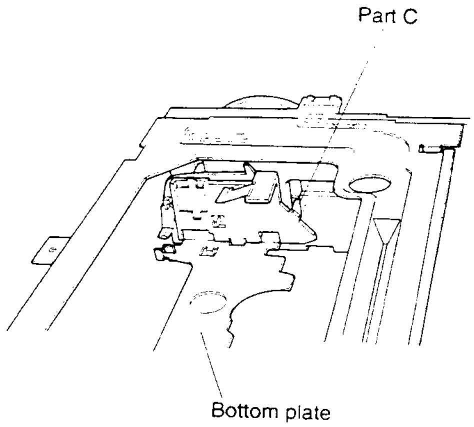

Part C
Bottom plate

Fig. 2-6-6

2-7 Jut

(Removal)

① Follow the removal method in Items ① to ⑥ of Para. 2-6.

② Unfasten the four catches(ⓐ,ⓑ,ⓒ and ⓓ) shown in Fig. 2-7-1 to remove the jut and the jut spring.

(Installation)

① Install the jut and the jut spring as shown in Fig. 2-7-1. (Insert the jut spring into the part A of the jut before installing the jut. Hook one end of the jut spring with the outside of the catch(ⓐ) and the other end with part B of the jut.)

② Install the bottom plate according to the installation method in ③ of Para. 2-6.

③ Follow the installation method in Item ⑤ to ⑧ in Para. 2-2.

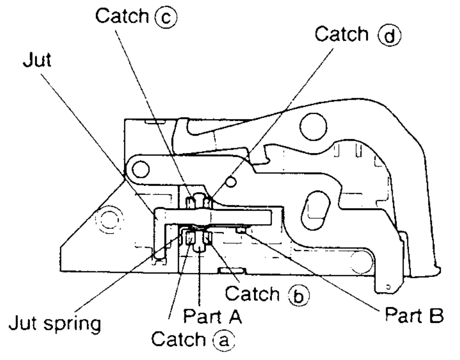

Catch ⓒ
Catch ⓓ
Jut
Catch ⓑ
Jut spring
Part A
Part B
Catch ⓐ

Fig. 2-7-1

2-8 PCB-HEAD-AMP

(Removal)

① Unfasten the hook and raise the head amp shield cover shown in Fig. 2-8-1 to remove it.

② Unsolder the terminals of the mode switch, the drum motor, and the rotary transformer shown in Fig. 2-8-1.

③ Lift the stopper of the A/C head assembly in Fig. 2-8-4 slightly upward and disconnect the lead connector(bare wire), connecting the PCB-HEAD-AMP and the PCB-A/C-HEAD.

④ Disconnect the lead connector(point A), connected to the FE head. (Refer to Fig. 2-8-2.)

⑤ Reverse the deck and disconnect the lead card, connecting the PCB of the capstan motor and the PCB-HEAD-AMP. (Refer to Fig. 2-8-3.)

⑥ Remove the three screws(ⓐ,ⓑ and ⓒ) and slowly pull the PCB-HEAD-AMP in the direction shown by the arrows. (Refer to Fig. 2-8-1.)

(Installation)

① Insert the terminals of the mode switch, the drum motor, and the rotary transformer, and the boss, adjacent to the mode switch, in the matching holes on the PCB-HEAD-AMP and secure the PCB-HEAD AMP with the three screws(ⓐ,ⓑ and ⓒ) in the order, ⓑ→ⓒ→ⓐ.(Refer to Fig. 2-8-1)

② Solder the pins mentioned in Item ①.

③ Reverse the deck and reconnect the lead card connecting the PCB of the capstan motor and the PCB-HEAD AMP (Refer to Fig. 2-8-3.) Take care not to fit lead card upside down.

④ Connect the lead connector, connected to the FE head, to the point A. (Refer to Fig. 2-8-2.)

⑤ Shift part B of the bare wire lead extended from the head amp slightly downward, lower the stopper, and connect it to the connector on the PCB-A/C-HEAD. (Refer to Fig. 2-8-4)

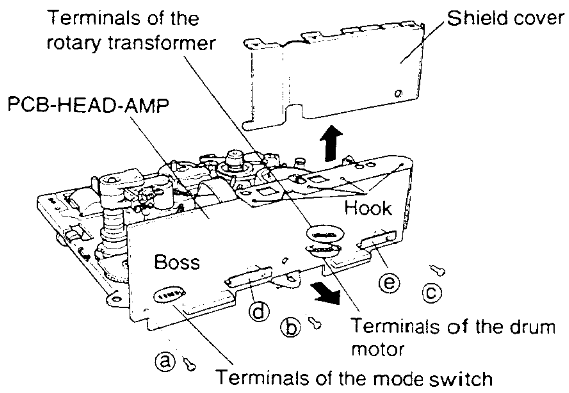

Terminals of the rotary transformer
Shield cover
PCB-HEAD-AMP
Hook
Boss
ⓔ
ⓒ
ⓓ
ⓑ
Terminals of the drum motor
ⓐ
Terminals of the mode switch

Fig. 2-8-1

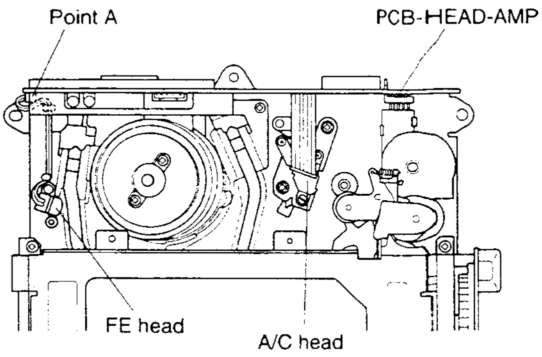

Point A
PCB-HEAD-AMP
FE head
A/C head

Fig. 2-8-2

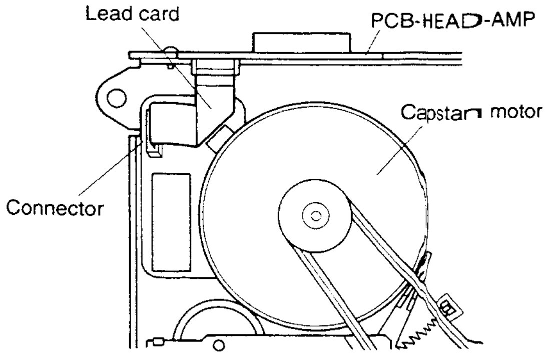

Lead card
PCB-HEAD-AMP
Capstan motor
Connector

Fig. 2-8-3

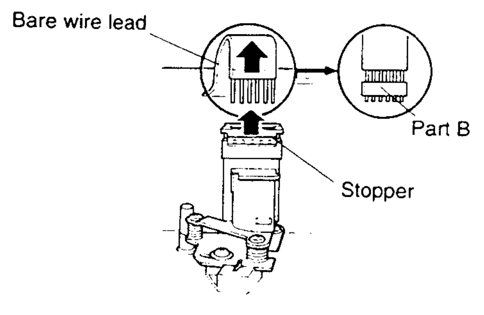


Fig. 2-8-4

2-9 Brush (Refer to the Fig.2-9-1.)

(Removal)

① Reverse the deck and remove the three screws(ⓐ,ⓑ and ⓒ) to remove the brush.

(Installation)

① Attach the brush on the position shown in Fig. 2-9-1 and secure it with the screws ⓐ and ⓑ. Tighten screw ⓒ.

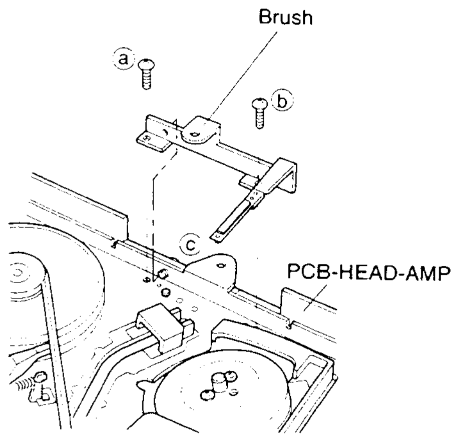


Fig. 2-9-1

2-10 Drum Assembly

Note: When removing and installing the drum assembly, do not touch the tape running surface with your hands.

Note: Take care not to bend the PCB-HEAD-AMP.

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the PCB-HEAD-AMP. (Refer to Para. 2-8 for the removal method.)

③ Unscrew the three screws(ⓐ,ⓑ and ⓒ) on the reverse side of the deck and remove the drum assembly. (Refer to Fig. 2-10-1.)

④ Slowly raise the drum assembly upward, take care not to touch other parts around it. (Do not touch the tape running surface of the drum with your hand.)

Note: During removal, support the drum assembly when it is not secured by fastening screws.

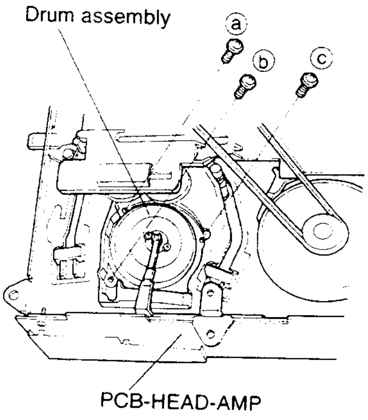


Fig. 2-10-1

(Installation)

① Carefully place the new drum assembly on the main plate of the deck, take care not to touch other parts.

② Holding the drum assembly, reverse the deck and secure the drum assembly with the three screws(ⓐ,ⓑ and ⓒ). (Tighten the screws in the order ⓐ→ⓑ→ⓒ and finally tighten again ⓐ.)(Refer to Fig. 2-10-1.)

③ Install the PCB-HEAD-AMP. (Refer to Para. 2-8 for the installation method.)

④ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

[Another Method]

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Unsolder the soldered pins on the terminal of the drum assembly and the terminal of the rotary transformer.(Refer to Fig. 2-10-2)

③ Unscrew the three screws(ⓐ,ⓑ and ⓒ) on the reverse side of the deck and remove the drum assembly. (Refer to Fig. 2-10-1.)

④ Slightly raise the drum assembly in the opposite direction of the pins. Remove the pins of the drum assembly and of the rotary transformer from the PCB-HEAD-AMP. Slowly remove the drum assembly, take care not to touch other parts around it.

(Installation)

① Carefully place the drum assembly on the main plate, take care not to touch the other parts around it. The pins of the drum assembly and the rotary transformer must enter the holes of the PCB-HEAD-AMP.

② Secure the drum assembly with the three screws(ⓐ,ⓑ and ⓒ) on the reverse side of the deck. (Tighten the screws in the order ⓐ→ⓑ→ⓒ and finally tighten ⓐ again.) (Refer to Fig. 2-10-1.)

③ Solder the pins of the drum assembly and the rotary transformer. (Refer to Fig. 2-10-2.)

④ Install the cassette housing.(Refer to Para. 2-1 for the installation method.)

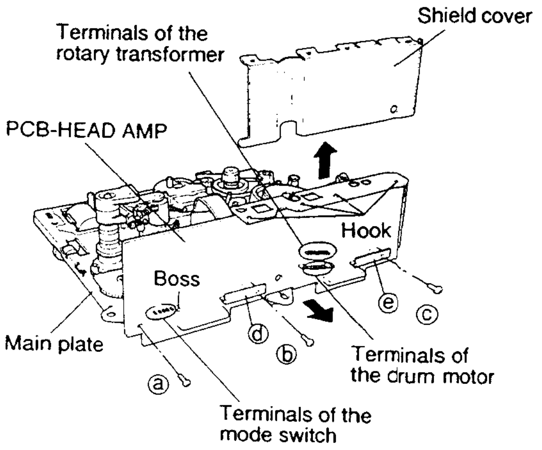

Shield cover
Terminals of the rotary transformer
PCB-HEAD AMP
Hook
Boss
ⓔ
ⓒ
Main plate
ⓓ
ⓑ
Terminals of the drum motor
ⓐ
Terminals of the mode switch

Fig. 2-10-2

2-11 Upper Drum and Drum Motor

Note: When only the upper drum is to be replaced, follow the procedure of Items ①~④ of the removal method and ②~④ of the installation method.

(Removal)

① Remove the drum assembly.
(Refer to Para. 2-10 for the removal method.)

② Unsolder the terminals of each head on the upper drum.

③ Remove the screws holding the upper drum shown in Fig. 2-11-1.

④ Remove the upper drum slowly and carefully.

⑤ Remove the screws (ⓐ and ⓑ) shown in Fig. 2-11-1 to remove the rotor case and damper. Remove the screws (ⓒ, ⓓ and ⓔ) to remove the drum motor.

(Installation)

Note: Handle the upper drum carefully as the video heads are fragile.

① Attach the rotary transformer and the drum motor so that the terminals of both face in the same direction, and secure them with the screws (ⓒ, ⓓ and ⓔ). Secure the rotor case with the screws (ⓐ and ⓑ).

② Position the white painted (shaded) area of the upper drum so that the area is 90° apart from the hole of the lower dram shaft. Insert the upper drum. Take care not to touch the head terminals. [Fig. 2-11-2]

③ Secure the upper drum with the two fastening screws. (Tighten the screws alternately.)

④ Solder the terminals of each head.

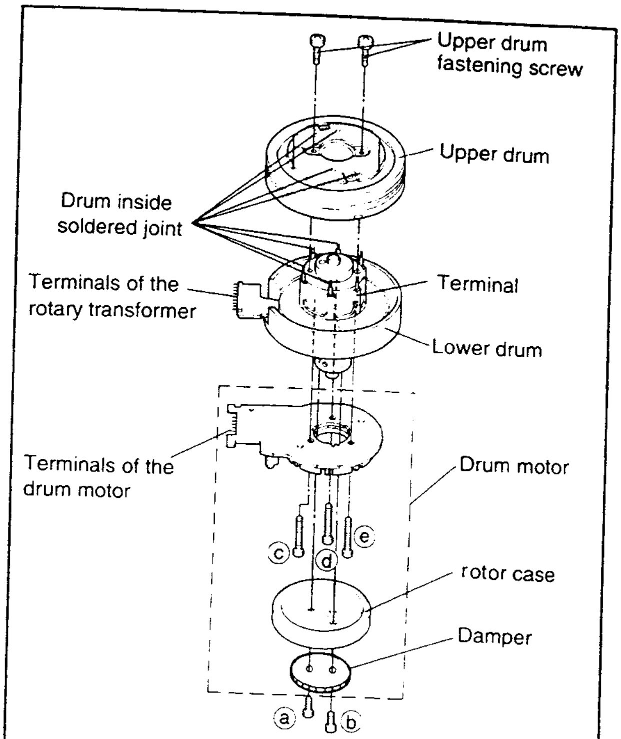

Upper drum fastening screw
Upper drum
Drum inside soldered joint
Terminals of the rotary transformer
Terminal
Lower drum
Terminals of the drum motor
Drum motor
ⓒ
ⓓ
ⓔ
rotor case
Damper
ⓐ
ⓑ

Fig. 2-11-1

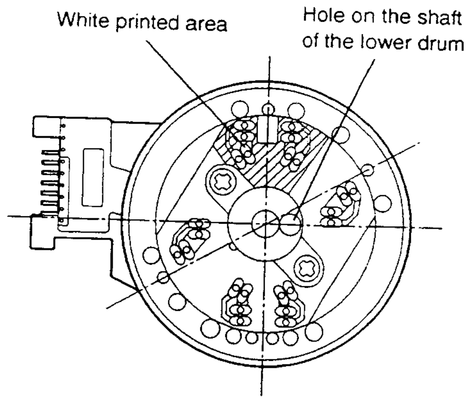

White printed area
Hole on the shaft of the lower drum

Fig. 2-11-2

2-12 Safety Spring and Safety Lever

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Unhook the safety spring with a tweezers.

③ Turn the safety lever clockwise and remove by raising it upward as shown in Fig. 2-12-2.

(Installation)

① Install the safety lever so that part A aligns with the hole on the main plate, shown in Fig. 2-12-1, and part B with the hole of the safety arm on the reverse side of the deck.

② Fix the safety spring to the shaft of the safety lever and hook it as shown in Fig. 2-12-3.

③ Install the cassette housing.(Refer to Para. 2-1 for the installation method.)

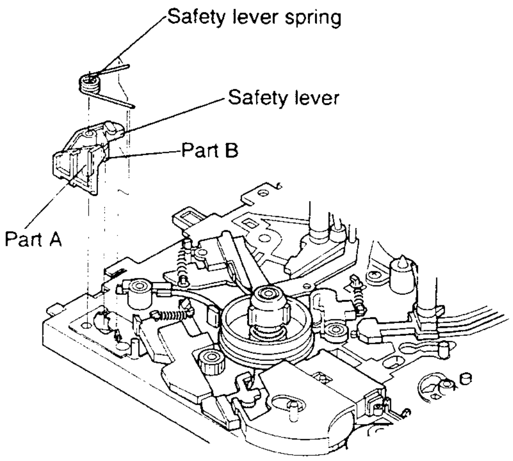

Safety lever spring
Safety lever
Part B
Part A

Fig. 2-12-1

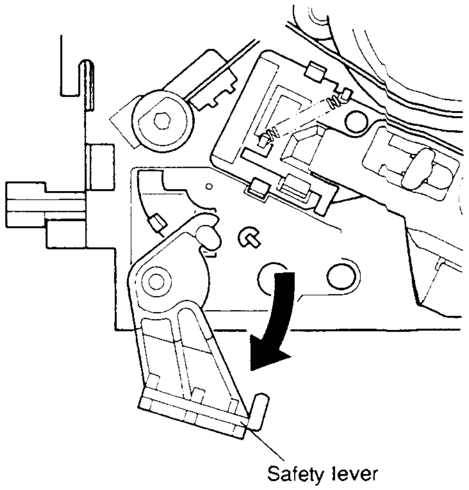

Safety lever

Fig. 2-12-2

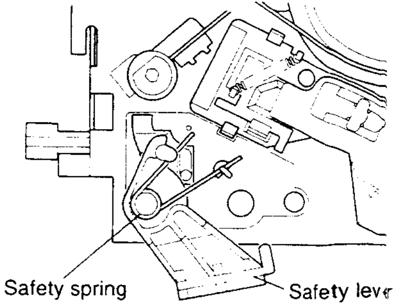

Safety spring
Safety lever

Fig. 2-12-3

2-13 Safety Arm

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the safety spring and the safety lever. (Refer to Para. 2-12 for the removal method.)

③ Unfasten the catch to remove the safety arm. (Refer to Fig. 2-13-1).

(Installation)

① Reverse the deck and fix the safety arm to the shaft of the main plate so that its catch is within the range shown in Fig. 2-13-2.

② Install the safety spring and the safety lever. (Refer to Para. 2-12 for the installation method.)

③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

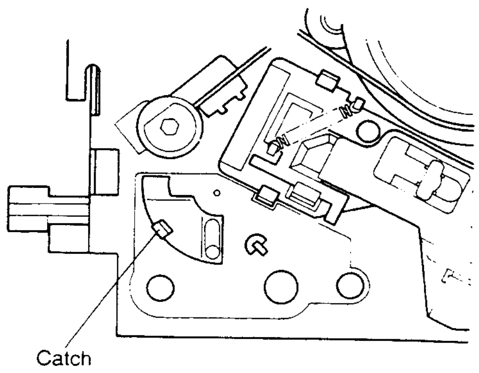


Fig. 2-13-1

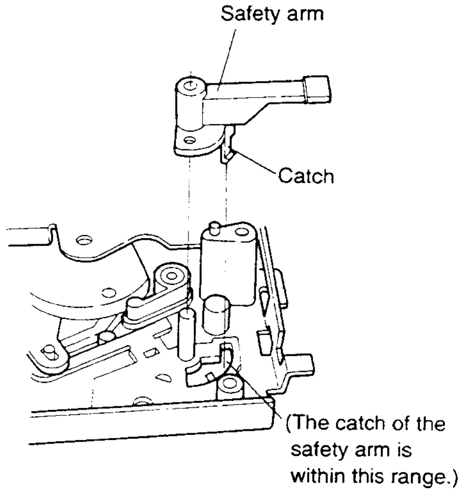


Fig. 2-13-2

2-14 Sub Brake(SP) and Sub Spring(SP)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Detach the sub spring(SP).

③ Reverse the deck and unfasten the catch with a small screw driver, etc., to remove the sub brake(SP) as shown in Fig. 2-14-2.

(Installation)

① Install the sub brake(SP) with care not to score the tension brake belt(without loosening of the tension brake belt).(Refer to Fig. 2-14-1)

② Attach the sub spring(SP).

③ Install the cassette housing.(Refer to Para. 2-1 for the installation method.)

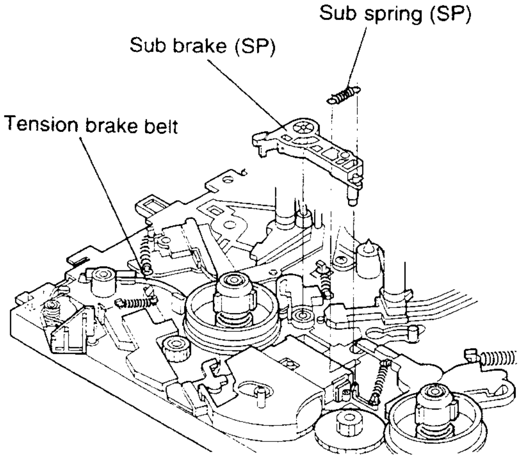


Fig. 2-14-1

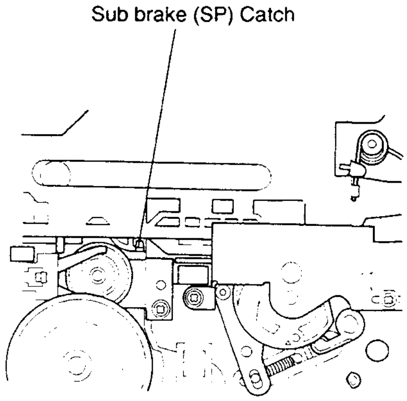

Sub brake (SP) Catch

Fig. 2-14-2

2-15 Main Brake (SP) and Main Brake Spring J(SP) (Refer to Fig. 2-15-1.)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Unhook the main brake spring J(SP).

④ Raise the main brake(SP) upward to remove it.

(Installation)

① Install the main brake(SP) on the main plate and attach the main brake spring J(SP).

② Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

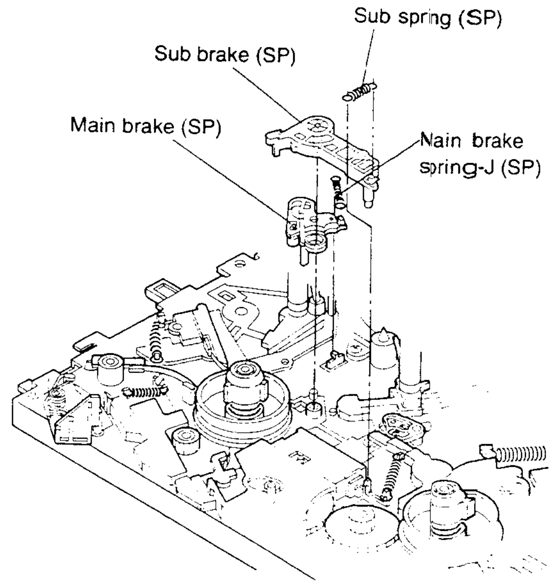

Sub spring (SP)
Sub brake (SP)
Main brake (SP)
Main brake spring-J (SP)

Fig. 2-15-1

2-16 Sub Off Lever, Sub Brake (TU), and Sub Spring (TU)

(Removal)

① Remove the cassette housing.
(Refer to Para. 2-1 for the removal method.)
② Remove the sub brake (SP) and the sub spring (SP).
(Refer to Para. 2-14 for the removal method.)
③ Unfasten the catch with a small screw driver, etc., and raise the sub off lever upward to remove it.
(Refer to Fig. 2-16-2)
④ Remove the sub spring (TU). (Refer to Fig. 2-16-1.)
⑤ Unfasten the catch with a small screw driver, etc., and raise the sub brake (TU) upward to remove it as shown in Fig. 2-16-2.

(Installation)

① Apply the grease (PG-641)[859D055030] to the area shown in Fig. 2-16-3.
② Install the sub brake (TU) on the main plate.
③ Install the sub off lever so that the hole A aligns with the boss of the sub brake (TU) as shown in Fig. 2-16-1.
④ Install the sub spring (TU).
⑤ Install the sub brake (SP) and the sub spring (SP).
(Refer to Para. 2-14 for the installation method.)
⑥ Install the cassette housing.
(Refer to Para. 2-1 for the installation method.)

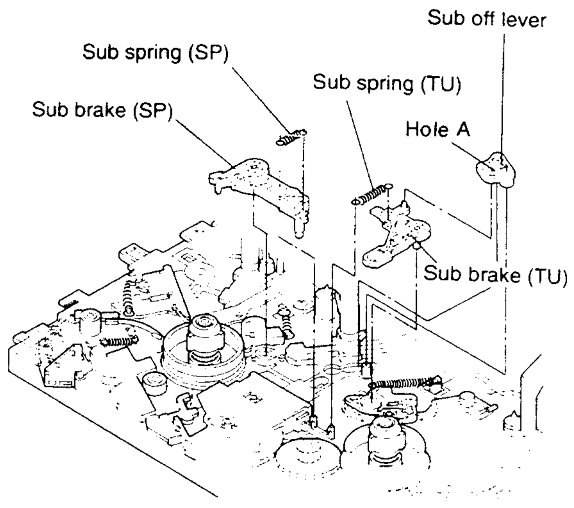

Sub off lever
Sub spring (SP)
Sub spring (TU)
Sub brake (SP)
Hole A
Sub brake (TU)

Fig. 2-16-1

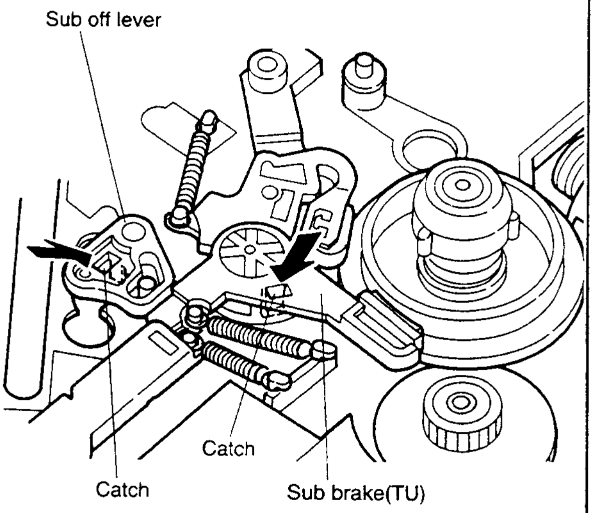

Sub off lever
Catch
Catch
Sub brake(TU)

Fig. 2-16-2

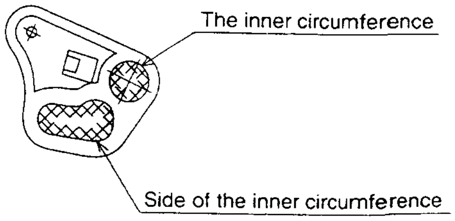

The inner circumference
Side of the inner circumference

Fig. 2-16-3

2-17 Main Brake(TU) and Main Brake Spring J(TU)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Remove the sub off lever, the sub brake(TU), and the sub spring(TU). (Refer to Para. 2-16 for the removal method.)

④ Remove the main brake spring J(TU) and raise the main brake(TU) upward to remove it. (Refer to Fig. 2-17-1.)

(Installation)

① Install the main brake(TU) on the main plate assembly so that the coupling portion with the main brake release lever is as shown in Fig. 2-17-2.

② Install the main brake spring J(TU).

③ Install the sub brake(TU), the sub off lever, and the sub spring(TU). (Refer to Para. 2-16 for the installation method.)

④ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑤ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

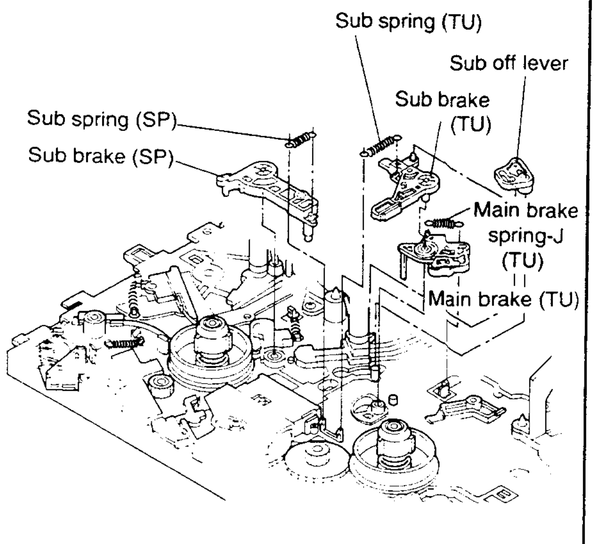

Sub spring (TU)
Sub off lever
Sub brake (TU)
Sub spring (SP)
Sub brake (SP)
Main brake spring-J (TU)
Main brake (TU)

Fig. 2-17-1

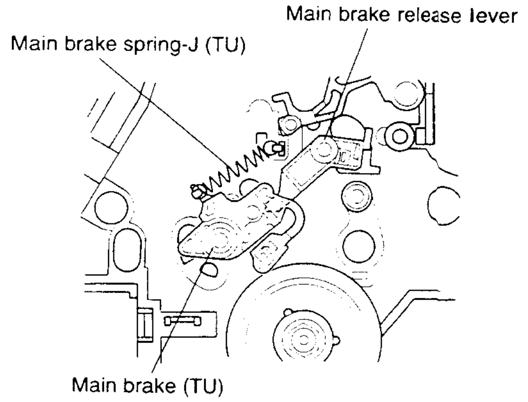

Main brake release lever
Main brake spring-J (TU)
Main brake (TU)

Fig.2-17-2

2-18 ID Swing Lever, Revolution Lever, and Revolution Spring

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Reverse the deck and remove the grip ring attached to the shaft G of the charge assembly.

③ Unfasten the two catches(A, B) to remove the charge assembly.

④ Remove the revolution spring with a tweezers.

⑤ Slide the revolution lever in the direction shown by the arrow and unfasten it from the catch C of the ID swing lever.(Refer to Fig. 2-18-1)

⑥ Detach the charge spring from the ID swing lever.

(Installation)

① Apply the grease(PG-641)[859D055O30] to the areas shown in Fig. 2-18-2 of the new revolution lever and the ID swing lever.

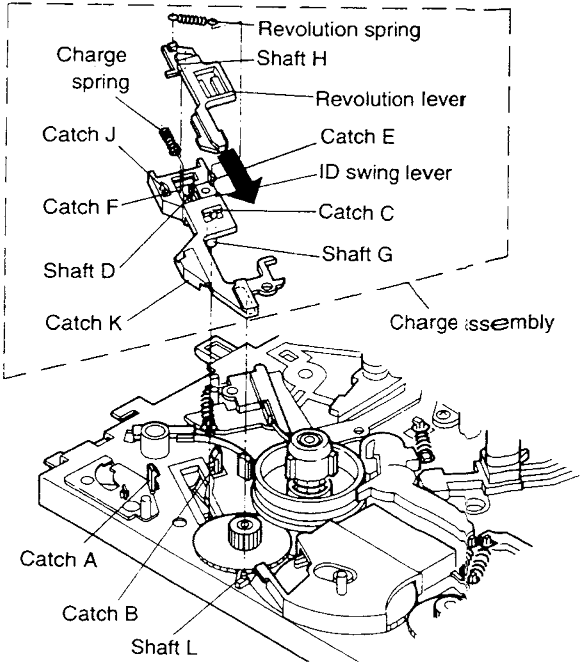

Revolution spring
Shaft H
Charge spring
Revolution lever
Catch J
Catch E
ID swing lever
Catch F
Catch C
Shaft G
Shaft D
Catch K
Charge assembly
Catch A
Catch B
Shaft L

Fig. 2-18-1

② Fix the charge spring to shaft D of the ID swing lever and compress it to hook its ends with the catches E and F.(Refer to Fig. 2-18-1)

Note: The charge spring should be installed in the directions shown below.

(Longitudinal Direction)

The bent tip is attached on the shaft D.

(Traverse Direction)

The wider semicircle is on the left as shown in Fig. 2-18-1.

③ Align the shaft H of the revolution lever with the position shown in Fig. 2-18-1. Insert catch C of the ID swing lever into the hole of the revolution lever, pushing the charge spring with a revolution lever in the direction shown by the arrow. At the same time, hook the ends of the revolution lever with the catches J and K.

④ Attach the revolution spring with a tweezers.

⑤ Install the charge assembly so that shaft G enters into the oval hole of the charge lever on the reverse side of the deck and the groove of the charge assembly fits the shaft as shown in Fig. 2-18-1. Secure the charge assembly with the catch A and B.

⑥ Reverse the deck and fix the new grip ring to the shaft G of the charge assembly.

⑦ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

2-19 Tension Arm, Tension Brake Belt, and Tension Spring

Note: During removal and installation, take care not to change the shape of the tension brake belt.

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for removal method.)

② Supply a voltage(approximately 5V DC plus voltage on the red wire) to the loading motor and slide the tape guide assembly completely to the loaded position,to set it to the loaded position.

③ Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

④ Unfasten the catch of the part A on the tension brake belt and raise the part A to unfasten the tension brake belt from the supply reel disk.(Refer to Fig. 2-19-1)

⑤ Remove the tension spring, unfasten the catch shown in Fig. 2-19-2, and raise the tension arm upward to remove it.

⑥ Reverse the tension arm, unfasten the catch with a tweezers as shown in Fig. 2-19-3 to remove the tension brake belt.

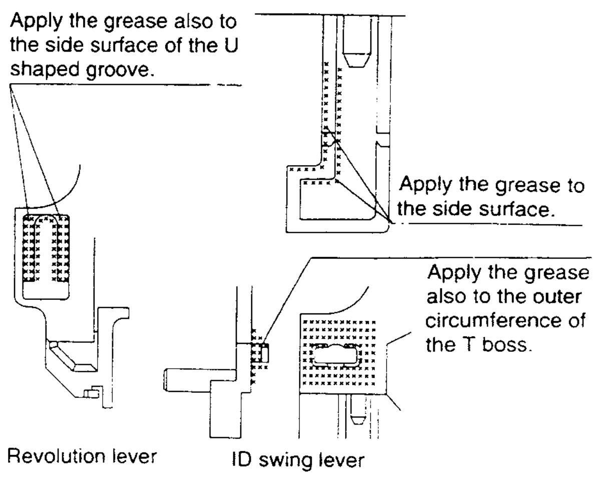

Apply the grease also to the side surface of the U shaped groove.
Apply the grease to the side surface.
Apply the grease also to the outer circumference of the T boss.
Revolution lever
ID swing lever

Fig. 2-18-2

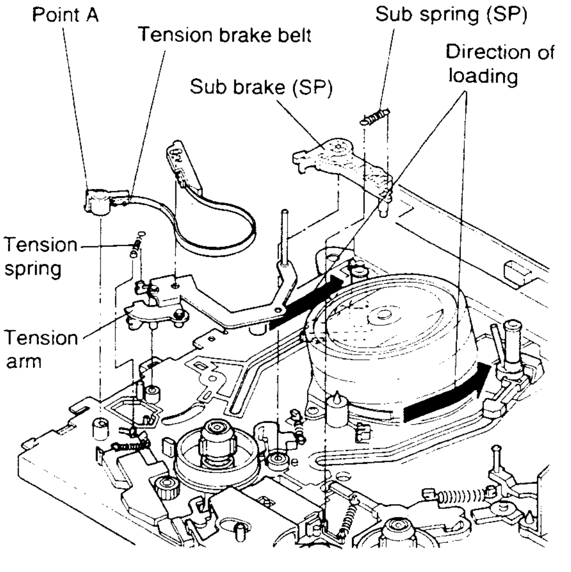

Point A
Tension brake belt
Sub spring (SP)
Direction of loading
Sub brake (SP)
Tension spring
Tension arm

Fig. 2-19-1

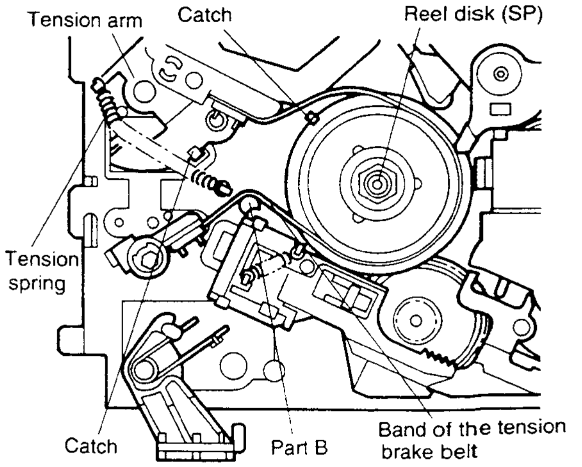

Tension arm
Catch
Reel disk (SP)
Tension spring
Catch
Part B
Band of the tension brake belt

Fig. 2-19-2

(Installation)

① Insert the catch in the position of the tension arm as shown in Fig. 2-19-3 to fasten the tension brake belt on the tension arm. (Take care not to let projection C, next to the catch of the tension brake belt touch the tension arm.)

② Install the tension arm, where the tension brake belt is fastened, on the main plate.

③ Fasten the tension brake belt around the supply reel disk. (The band of the tension brake belt must pass the outside of the catch shown in Fig. 2-19-2 and inside of the part B.)

④ Attach the tension spring.

⑤ Install the sub brake(SP) and sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑥ Supply voltage(approximately 5V), reversing the polarity used in ② of the Removal method, to set the motor to the unloaded position.

⑦ Make sure that the holes (matching mark M) on the body and cogwheel of the mode switch align with each other as shown in Fig. 2-19-4. At the same time confirm that the hole of the gear pinch aligns with the matching marks of the gear joint J and the ▽mark on the mode switch cogwheel,refer to Fig. 2-19-5. This indicates the J deck is in the EJECT mode.

⑧ If the deck is not completely set to the eject mode, turn part D of the pulley worm J by hand to set the eject mode.

Turn in the direction a ······ for loading
Turn in the direction b ······ for unloading
(Refer to Fig. 2-19-6)

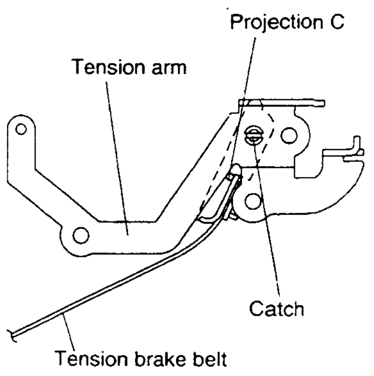

Projection C
Tension arm
Catch
Tension brake belt

Fig. 2-19-3

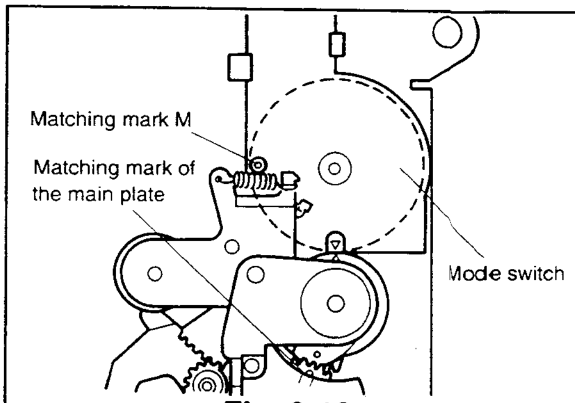

Matching mark M
Matching mark of
the main plate
Mode switch

Fig. 2-19-4

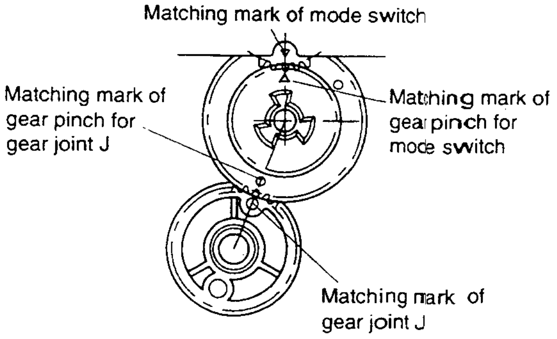

Matching mark of mode switch
Matching mark of
gear pinch for
gear joint J
Matching mark of
gear pinch for
mode switch
Matching mark of
gear joint J

Fig. 2-19-5

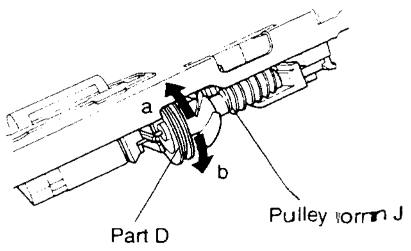

a
b
Part D
Pulley worm J

Fig. 2-19-6

2-20 Takeup Reel Disk and Gear R(takeup side)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Remove the sub off lever, the sub brake(TU), and the sub spring(TU). (Refer to Para. 2-16 for the removal method.)

④ Unfasten the catch shown in Fig. 2-20-1 and raise the takeup reel disk upward to remove it from the shaft.

⑤ Raise the gear R(takeup side) upward to remove it from the shaft. (Refer to Fig. 2-20-2.)

(Installation)

① Install the gear R(takeup side) on the shaft. (Refer to Fig. 2-20-2.)

② Install the takeup reel disk on the shaft.(Refer to Fig. 2-20-2)

③ Install the height adjusting jig [master plane](used for F deck: Part No.859C342020) in the specified position. (Insert the jig into hole A, shown in Fig. 2-20-3, so that the jig sets on part B and the end of part C. Take care that the jig does not touch the supply and takeup reel disks.)

④ Place the height adjusting jig [square](used for E deck: Part No.859C341070) on the jig installed in Item ③ as shown in Fig. 2-20-4. Make sure that the height is correct (between A and B).

⑤ Adjust the height of the supply reel disk by varying the number of the washers (Part No.552C017020) under the disk.

A) If it is high, remove washer(s).

B) If it is low, add washer(s).

⑥ Install the sub brake(TU), the sub off lever, and the sub spring(TU). (Refer to Para. 2-16 for the installation method.)

⑦ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑧ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

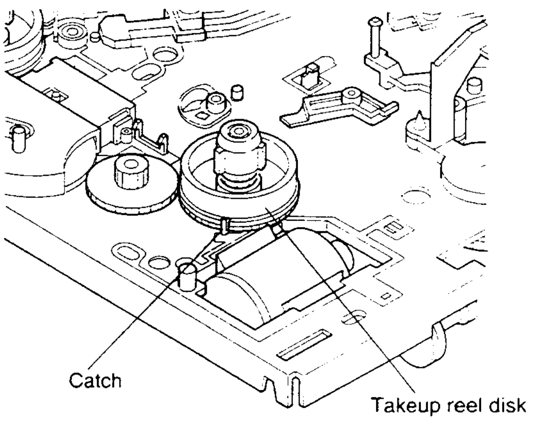

Catch
Takeup reel disk

Fig. 2-20-1

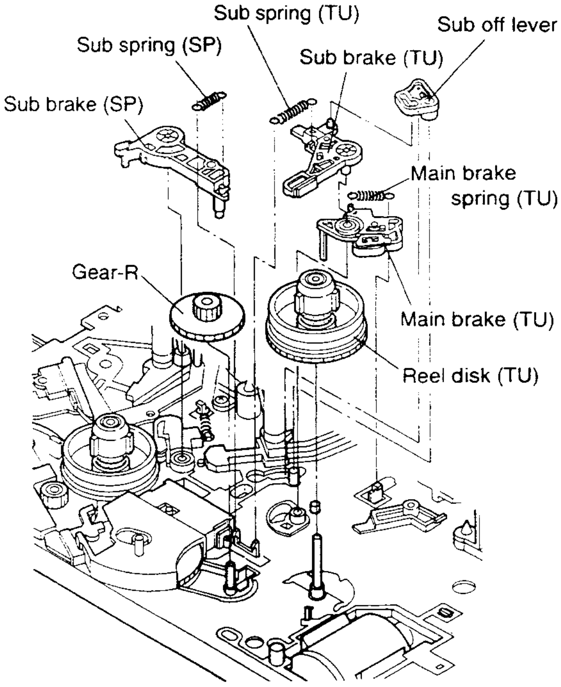

Sub spring (TU)
Sub off lever
Sub spring (SP)
Sub brake (TU)
Sub brake (SP)
Main brake spring (TU)
Gear-R
Main brake (TU)
Reel disk (TU)

Fig. 2-20-2

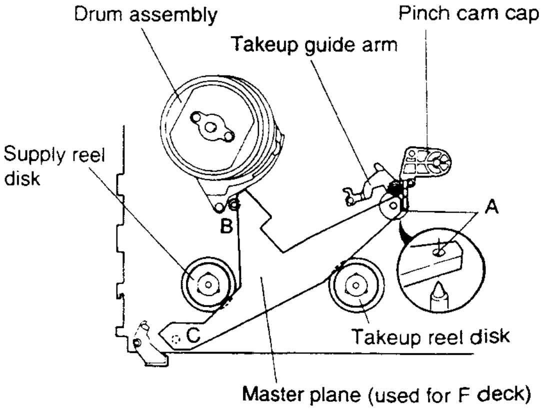

Drum assembly
Pinch cam cap
Takeup guide arm
Supply reel disk
A
B
C
Takeup reel disk
Master plane (used for F deck)

Fig. 2-20-3

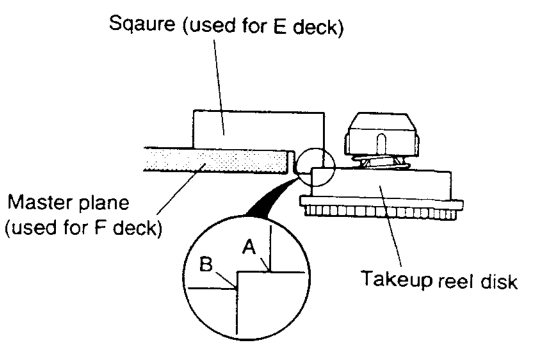

Sqaure (used for E deck)
Master plane
(used for F deck)
A
B
Takeup reel disk

Fig. 2-20-4

2-21 Supply Reel Disk

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.

③ Raise the part B of the tension brake belt upward to unfasten the belt from the supply reel disk as shown in Fig. 2-21-2. (Refer to Para. 2-19 for the removal method.)

④ Unfasten the catch shown in Fig. 2-21-1 and raise the supply reel disk upward to remove it from the shaft.

(Installation)

① Install the supply reel disk on the shaft.

② Install the height adjusting jig [master plane](used for F deck: Part No.859C342020) in the specified position. (Insert the jig into the hole A shown in Fig. 2-20-3 so that the jig sets on part B and the end of part C. Take care that the jig does not touch the supply and takeup reel disks.)

③ Place the height adjusting jig [square](used for E deck: Part No.859C341070) on the jig, previously installed placed in Item ④, as shown in Fig. 2-21-3. Make sure that the height is correct (between A and B).

④ Adjust the height of the supply reel disk by varying the number of the washers(Part No.552C017020) under the disk.

A) If it is high, remove washer(s).

B) If it is low, add washer(s).

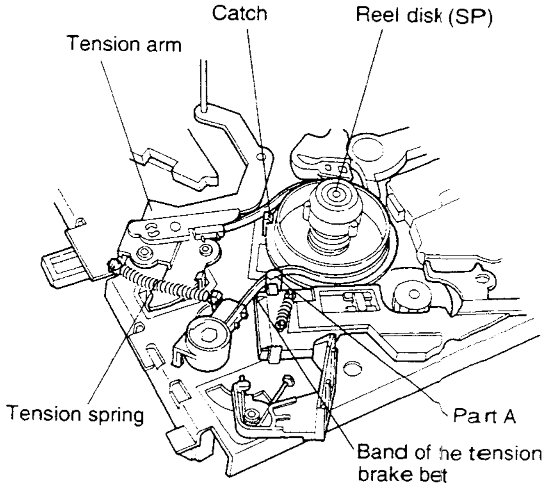

Catch
Reel disk (SP)
Tension arm
Tension spring
Part A
Band of the tension brake belt

Fig. 2-21-1

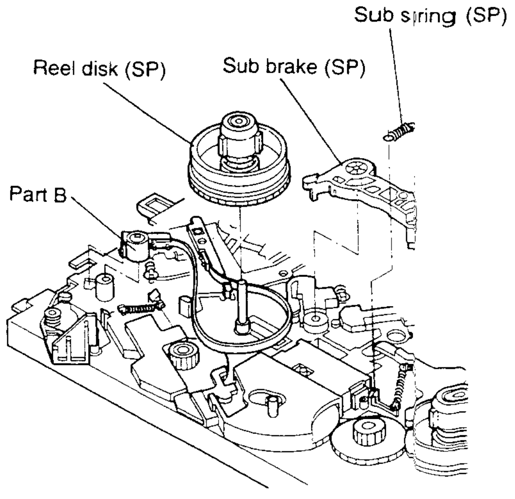

Sub spring (SP)
Reel disk (SP)
Sub brake (SP)
Part B

Fig. 2-21-2

⑤ Fasten the tension brake belt round on the supply reel disk, taking care not to score the belt and route part B of the tension brake belt as shown in Fig. 2-21-2. (Refer to Para. 2-19 for the installation method.) (The band of the tension brake belt must pass outside of the catch shown in Fig. 2-21-1 and inside of the part A.)
⑥ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)
⑦ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

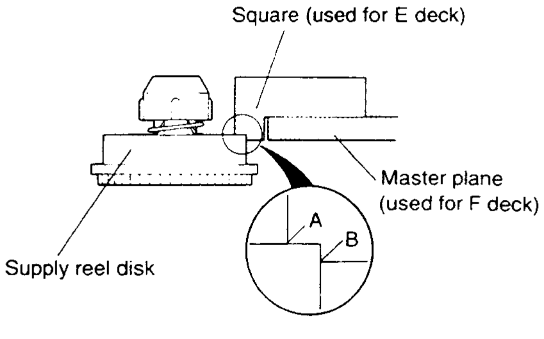

Square (used for E deck)
Master plane
(used for F deck)
A
B
Supply reel disk

Fig. 2-21-3

2-22 Gear R(supply side) (Refer to Fig. 2-22-1.)

(Removal)
① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)
② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)
③ Unfasten the tension brake belt from the supply reel disk and remove the supply reel disk. (Refer to Para. 2-21 for the removal method.)
④ Remove the charge assembly. (Refer to item ② of Removal in Para. 2-18 for the removal method.)
⑤ Raise the gear R(SP) upward to remove it from the shaft.

(Installation)
① Install the gear R(SP) on the shaft.
② Install the supply reel disk. (Refer to Para. 2-21 for the installation method.)
③ Install sub brake(SP) and sub spring(SP). (Refer to Para. 2-14 for the installation method.)
④ Install the charge assembly. (Refer to Item ⑤ of Para. 2-18 for the installation method.)
⑤ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

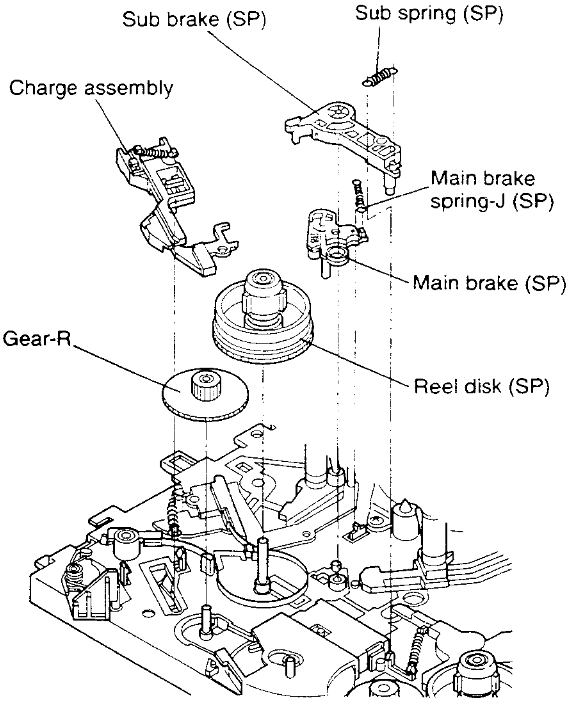

Sub brake (SP)
Sub spring (SP)
Charge assembly
Main brake
spring-J (SP)
Main brake (SP)
Gear-R
Reel disk (SP)

Fig. 2-22-1

2-23 Main Brake Release Lever (Refer to Fig. 2-23-1.)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP), and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Remove the sub off lever, the sub brake(TU), and the sub spring(SP). (Refer to Para. 2-16 for the removal method.)

④ Remove the main brake(TU) and the main brake spring J(TU). (Refer to Para. 2-17 for the removal method.)

⑤ Shift catch A of the main brake release lever, and push catch B at the same time, in the direction shown by each arrow. Unfasten catch B from the main plate to remove the main brake release lever. (Refer to Fig. 2-23-2).

(Installation)

① Install the main brake release lever so that the shaft enters the inside groove shown in Fig. 2-23-3 of the main gear J.

② Install the main brake(TU) and the main brake spring J(TU). (Refer to Para. 2-17 for the installation method.)

③ Install the sub brake(TU), the sub off lever, and the sub spring(TU). (Refer to Para. 2-16 for the installation method.)

④ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑤ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

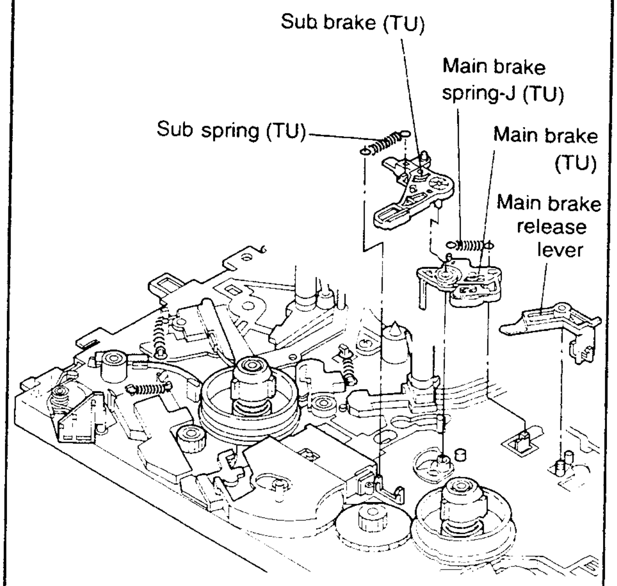


Fig. 2-23-1

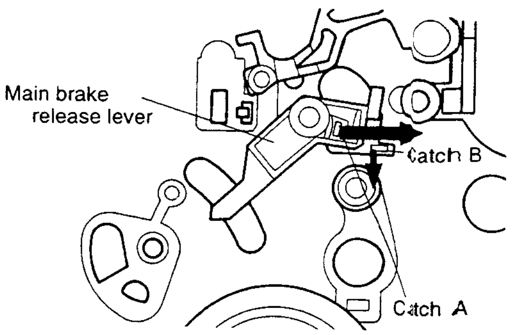


Fig. 2-23-2

Insert the boss of the main brake release lever into the position shown in the figure below of the main gear J.

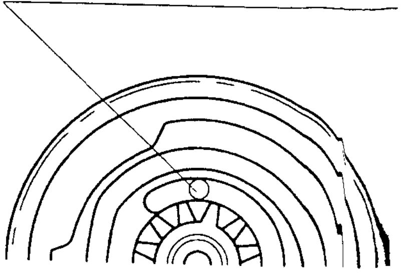


Fig. 2-23-3

2-24 Pinch Cam Cap, Pinch Roller Arm Assembly, Pinch Cam, Takeup Guide Gear, Gear Pinch, Takeup Guide Arm, and Takeup Guide Spring

(Removal)

① Unfasten the catch shown in Fig. 2-24-1 and raise the pinch cam cap upward to remove it.
② Raise the pinch roller arm assembly upward to remove it.
③ Raise the pinch cam and the takeup guide gear upward to remove them from the shaft.
④ Unfasten the two catches holding the mode switch and remove the gear pinch from the shaft, lift the mode switch only high enough to remove the gear pinch. (Take care not to break the pins of the mode switch.)
⑤ Remove the nut at the top of the takeup guide arm with a (5.5mm) box screw driver.
⑥ Raise the takeup guide arm upward to remove it.
⑦ Remove the takeup guide spring.

(Installation)

① Hook one end of the takeup guide spring with the takeup guide arm, fix the takeup guide spring to the shaft.
② Apply grease (PG-641) [859D055O30] around the top of the new takeup guide arm (the surface which touches with the nut). Fix the takeup guide arm to the shaft, and secure it with the nut. (Set the takeup guide arm to the height shown in Fig. 2-24-2 temporarily.)
③ Lift the mode switch, only high enough to install the gear pinch and place the gear pinch under the mode switch. Fix the mode switch to the shaft so that the matching marks of the gear pinch align with those of the gear joint J and the mode switch as shown in Fig. 2-24-3.
④ Install the takeup guide gear so that the first cog of the takeup guide arm aligns with the matching mark on the takeup guide gear as shown in Fig. 2-24-4.
⑤ Apply grease (G) [859D055O50] to the area shown in Fig. 2-24-5 of the new pinch cam.
⑥ Turn the takeup guide arm clockwise while inserting the pinch cam into the gear pinch. Install the pinch cam so that it aligns with the triple catch. (Excessive rotation of the takeup guide arm will keep it from returning, since the takeup guide gear is caught on the pinch roller cam.)
⑦ Apply the grease (PG-641) [859D055O30] to the new pinch cam cap on the area shown in Fig. 2-24-7.
⑧ Install the pinch roller arm assembly and the pinch cam cap.

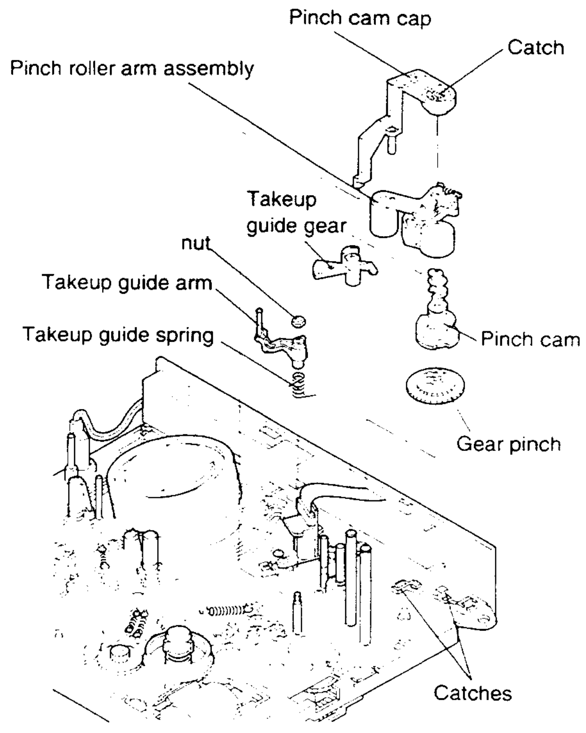

Pinch cam cap
Catch
Pinch roller arm assembly
Takeup guide gear
nut
Takeup guide arm
Takeup guide spring
Pinch cam
Gear pinch
Catches

Fig. 2-24-1

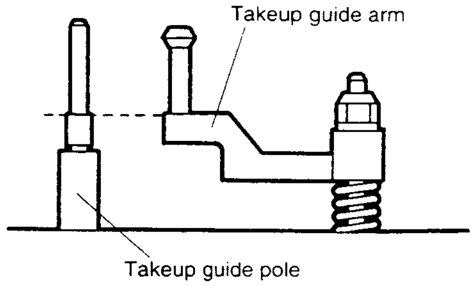

Takeup guide arm
Takeup guide pole

Fig. 2-24-2

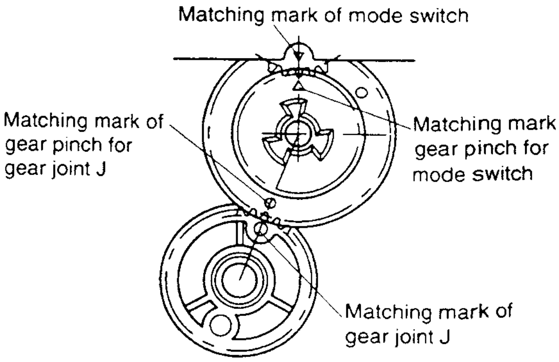

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-24-3

[Adjustment of Takeup Guide Arm Height]

Adjust the height of the takeup guide arm according to the following procedure.

① Place the height adjusting jig (for the F deck) in the reference position on the main plate (Refer to Fig. 2-20-3). Tighten the takeup guide arm fastening nut so that the lower flange of the takeup guide arm is level with point B of the height adjusting jig (for the E deck).
(Refer to Fig. 2-24-6).

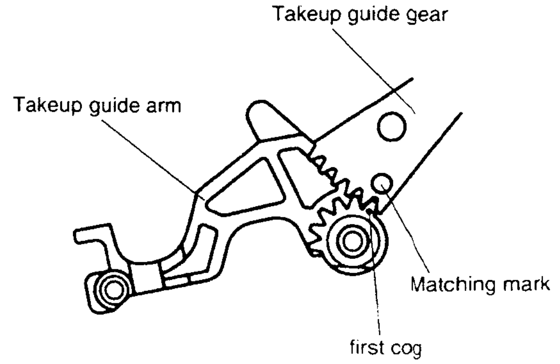

Takeup guide gear
Takeup guide arm
Matching mark
first cog

Fig. 2-24-4

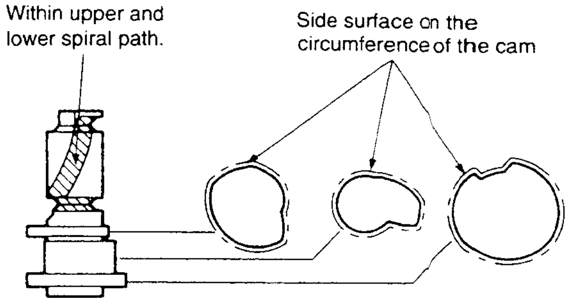

Within upper and lower spiral path.
Side surface on the circumference of the cam

Fig. 2-24-5

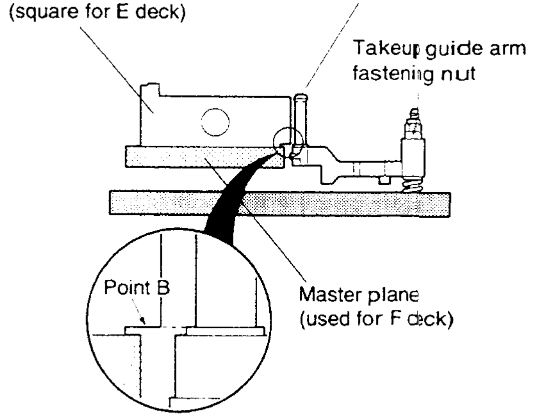

Height adjusting jig (square for E deck)
Takeup guide arm
Takeup guide arm fastening nut
Point B
Master plane (used for F deck)

Fig. 2-24-6

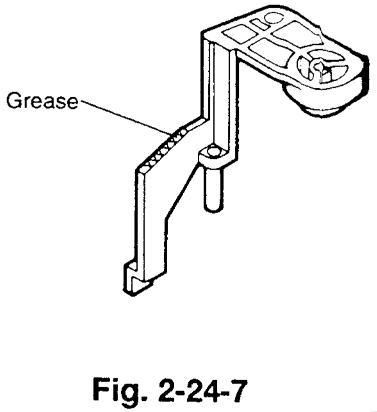


Fig. 2-24-7

2-25 Pinch Roller, Roller Cap, Pinch Spring, and Pinch Cam Spring

Note: During removal and installation, do not expand the pinch spring more than 18mm and the pinch cam spring more than 27mm.

(Removal)

① Pry the pinch roller and the roller cap to remove them as shown in Fig. 2-25-1.

② Remove the pinch spring and the pinch cam spring.

(Installation)

① Install the pinch cam spring and the pinch spring making sure that the pinch arm, the pinch slider, and the pinch lever are composed as shown in Fig. 2-25-2.

② Install the pinch roller so that the side, with the widest aluminium bushing, is on the roller cap side. Push the roller cap inside to secure the pinch roller.(Refer to Fig. 2-25-3)

Note: There are two types of pinch rollers as shown in Fig. 2-25-3. Each should be installed in the direction shown below.

(Type A)

The side on which aluminum is wider is attached the roller cap.

(Type B)

The convex portion is attached on the roller cap.

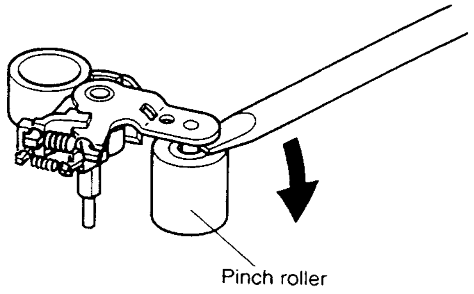

Pinch roller

Fig. 2-25-1

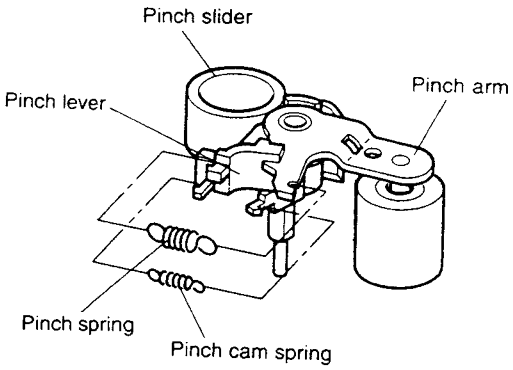

Pinch slider
Pinch lever
Pinch arm
Pinch spring
Pinch cam spring

Fig. 2-25-2

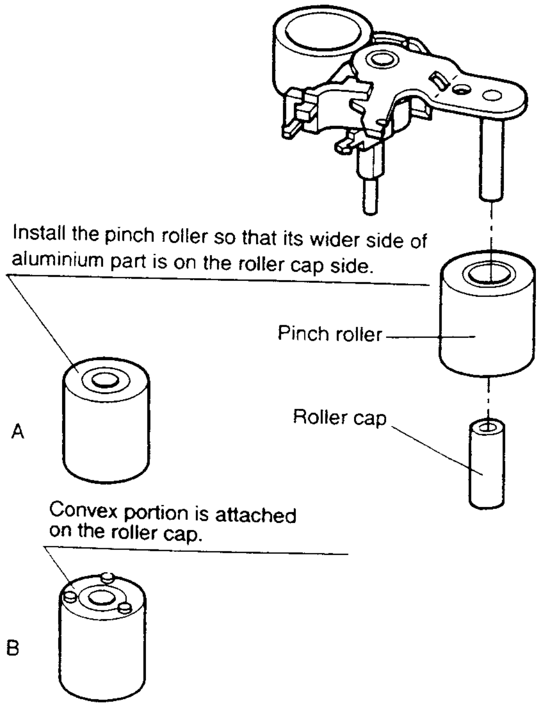

Install the pinch roller so that its wider side of aluminium part is on the roller cap side.
Pinch roller
A
Roller cap
Convex portion is attached on the roller cap.
B

Fig. 2-25-3

2-26 Mode Switch

(Removal)

① Remove the pinch cam cap, the pinch roller arm assembly, the pinch cam, and the takeup guide gear. (Refer to Para. 2-24 for the removal method.)

② Unsolder the five soldered terminals connecting the PCB-HEAD-AMP to the mode switch. (Refer to Fig. 2-26-1).

③ Unfasten two catches holding the mode switch. (Refer to Fig. 2-26-2.)

④ Slowly remove the mode switch, making sure that it is completely unsoldered.

(Installation)

① Insert the five pins and the boss of the mode switch shown in Fig. 2-26-1 into the matching holes of the PCB-HEAD-AMP. Place the mode switch on the main plate so that the matching mark of the gear pinch aligns with that of the mode switch and fasten it with the catches as shown in Fig. 2-26-3. (Also make sure that the matching mark of the gear joint aligns with that of the gear pinch.)

② Install the takeup guide gear, the pinch cam, the pinch roller arm assembly, and the pinch cam cap. (Refer to Para. 2-24 for the installation method.)

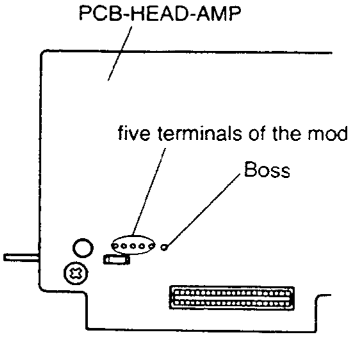

PCB-HEAD-AMP
five terminals of the mode switch
Boss

Fig. 2-26-1

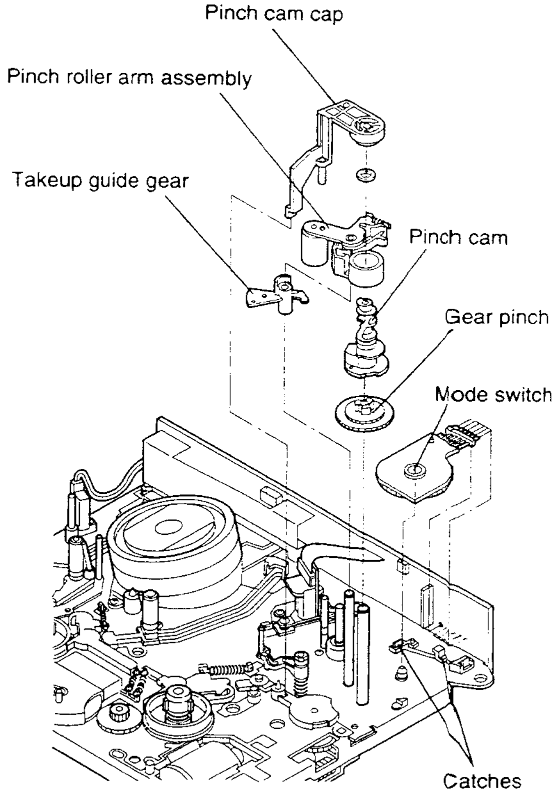

Pinch cam cap
Pinch roller arm assembly
Takeup guide gear
Pinch cam
Gear pinch
Mode switch
Catches

Fig. 2-26-2

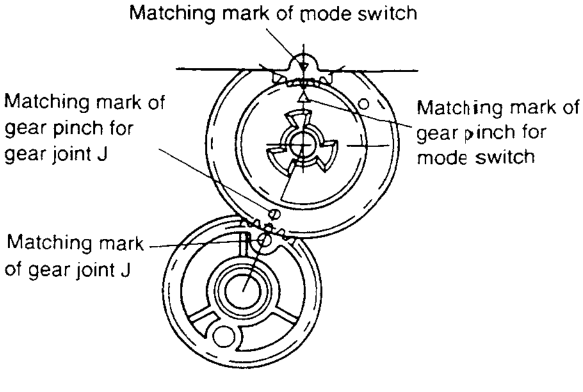

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-26-3

2-27 FE Head (Refer to Fig. 2-27-1.)

(Removal)

① Disconnect the lead connector, connected to the FE head.

② Remove the screw(ⓐ) to remove the FE head.

(Installation)

① Secure the FE head with the screw(ⓐ) and connect the lead connector to the FE head. (Route the lead connector, which is fastened with the catch as shown in Fig. 2-27-1, through the hook of the main plate.)

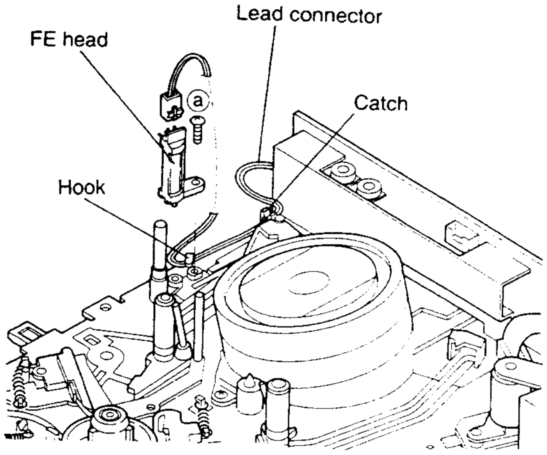


Fig. 2-27-1

2-28 Reel Belt and Belt Pulley

(Removal)

① Unfasten the reel belt from the capstan motor and the belt pulley.

② Release the belt pulley as shown in Fig. 2-28-1 and raise the belt pulley upward to remove it.

(Installation)

Note: When installing the reel belt, make sure it is clean and free of grease.(Clean with dry gauze only)

① Fasten the belt pulley to the shaft.(When fixing the belt pulley to the shaft of the idler assembly, make sure that the three convex parts of the washer fixed to the shaft enter the matching dents.

② Secure the belt pulley with the new cut washer.

③ Install the reel belt on the capstan motor and the belt pulley, taking care that the belt is not twisted.

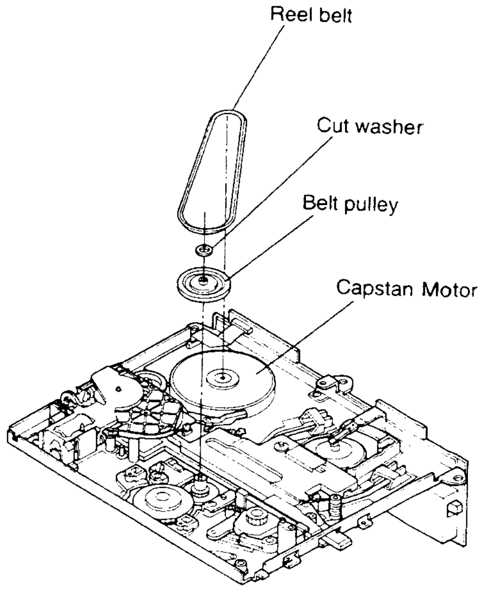


Fig. 2-28-1

2-29 Loading Motor Assembly, Pulley Worm J, Loading Motor Belt, and Gear A

(Removal)

① Unfasten the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the three screws(ⓐ,ⓑ and ⓒ) as shown in Fig. 2-29-2 and unfasten the three catches to remove the loading motor assembly (which holds the motor holder). (Refer to Fig. 2-29-1)

③ Remove the loading motor belt from the motor pulley. (Refer to Fig. 2-29-3.)

④ Unfasten the catches holding the motor holder to remove the loading motor assembly.
(Refer to Fig. 2-29-3.)

⑤ Remove the pulley worm J, first the end attached to the part A shown in Fig. 2-29-3 and then the other end.

⑥ Remove the cut washer and unfasten the catch holding Gear A. Remove Gear A.

⑦ Pull the motor pulley to remove it from the loading motor.

⑧ Disconnect the wires from the loading motor.

(Installation)

① Solder the leads to the loading motor.(Red lead wire to the positive terminal and white lead wire to the negative terminal.)

② Install the motor pulley on the loading motor so that the space between the loading motor and the outer edge of the motor pulley is 8.5±0.1mm. (Refer to Fig. 2-29-4)

③ Install the loading motor assembly so that the label on it faces part B, shown in Fig. 2-29-3.

④ Apply grease (G)[859D055O50] to the areas shown in Fig. 2-29-4 of the new pulley worm J. Install the pulley worm J, first the end attached to the part C shown in Fig.2-29-3 and then the other end.

⑤ Fix the gear A to the shaft of the motor holder J and secure it with new cut washers.

⑥ Lift the end attached to the part A shown in Fig. 2-29-3 of the pulley worm J. Fasten the loading motor belt on the pulley worm J and the motor pulley, taking care not to twist the belt.

⑦ Install the loading motor assembly(which holds the motor holder) in the position shown in Fig. 2-29-2 and secure it with the three screws(ⓐ,ⓑ and ⓒ).

⑧ Install the loading motor belt. (Refer to Para. 2-28 for the installation method.)

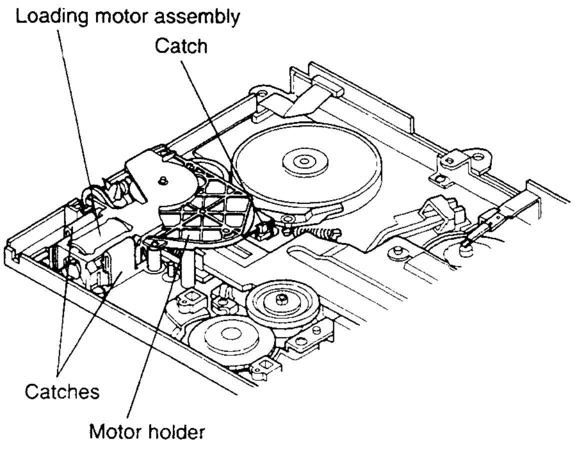

Loading motor assembly
Catch
Catches
Motor holder

Fig. 2-29-1

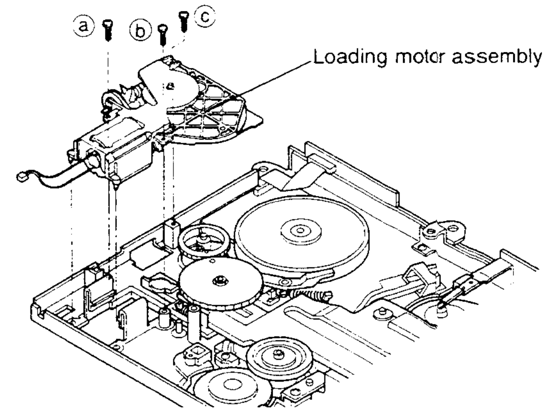

ⓐ
ⓑ
ⓒ
Loading motor assembly

Fig. 2-29-2

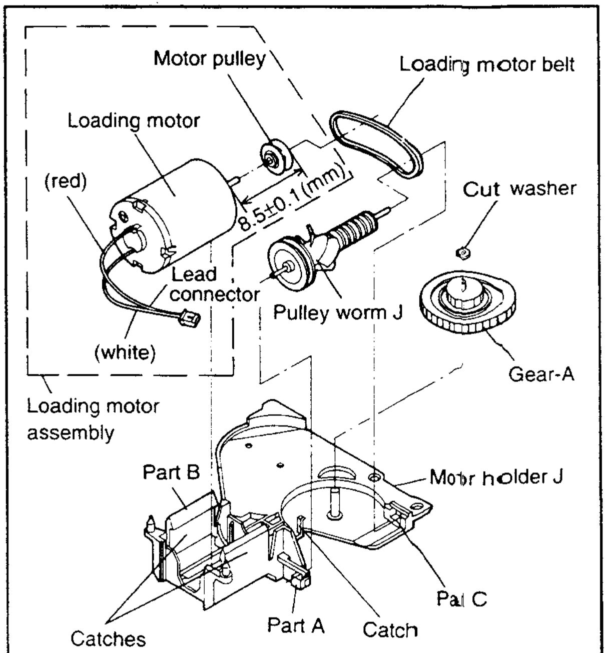

Motor pulley
Loading motor belt
Loading motor
(red)
8.5±0.1(mm)
Cut washer
Lead connector
Pulley worm J
(white)
Gear-A
Loading motor assembly
Part B
Motor holder J
Part C
Part A
Catch
Catches

Fig. 2-29-3

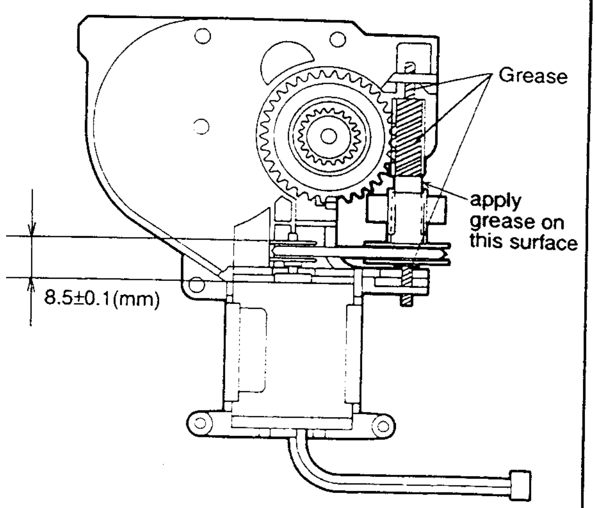


Fig. 2-29-4

2-30 Main Gear J

(Removal)

① Remove the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Remove the cut washer mounted on the main gear J.

④ Raise the main gear J upward to remove it.

(Installation)

① Apply grease(G)[859D055O50] to the outside cogs, the groove of the cam and to the inside small cogs of the new main gear J. (Refer to Fig. 2-30-2.)

② Make sure that the cam plate B is set to the right side, viewed from the bottom side of the deck. (Eject mode)

③ Push the axis of the main brak (TU) in the direction shown by the arrow until the main brake release lever moves freely. Turn the deck the right side up and shift the axis of the main brake release lever in the direction shown by the arrow. Then fix the main gear J to the shaft, with the axis of the main brake release lever held in place. Secure the main plate J with the cut washer. (Refer to Fig. 2-30-3) (Insert the pin of the capstan brake in the outside groove of the main gear J and align the matching marks of gear joint J and the main gear J.)(Refer to Fig. 2-30-4)

④ Install the loading motor assembly (which holds the motor holder) and the reel belt. (Refer to Para. 2-28 for the installation method.)

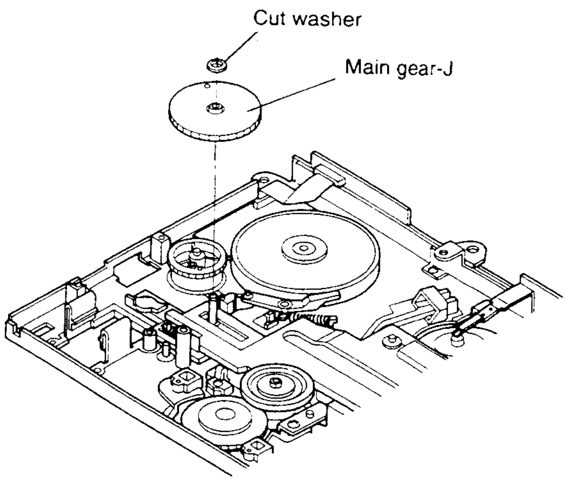


Fig. 2-30-1

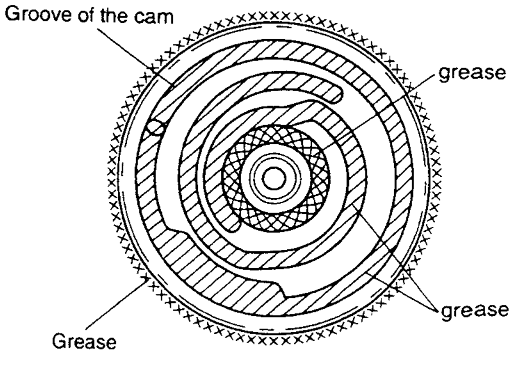


Fig. 2-30-2

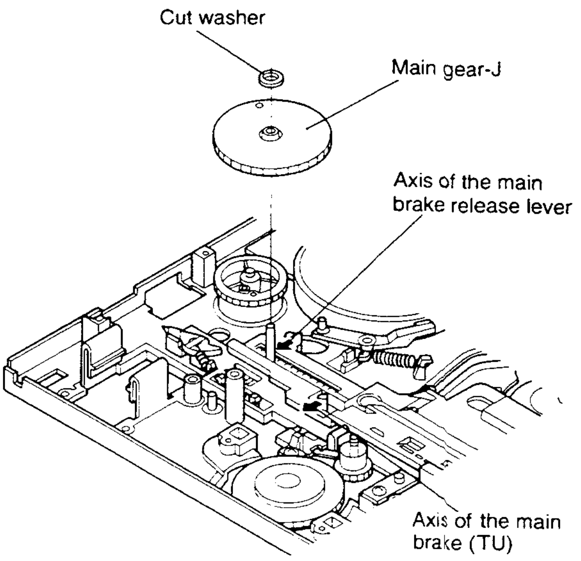

Cut washer
Main gear-J
Axis of the main brake release lever
Axis of the main brake (TU)

Fig. 2-30-3

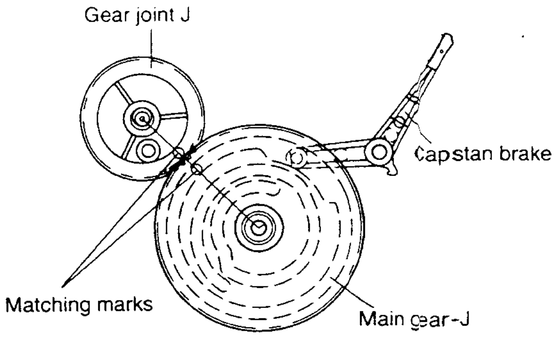

Gear joint J
Capstan brake
Matching marks
Main gear-J

Fig. 2-30-4

2-31 Gear Joint J

(Removal)

① Remove the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Raise the gear joint J upward to remove it. (Refer to Fig. 2-31-1)

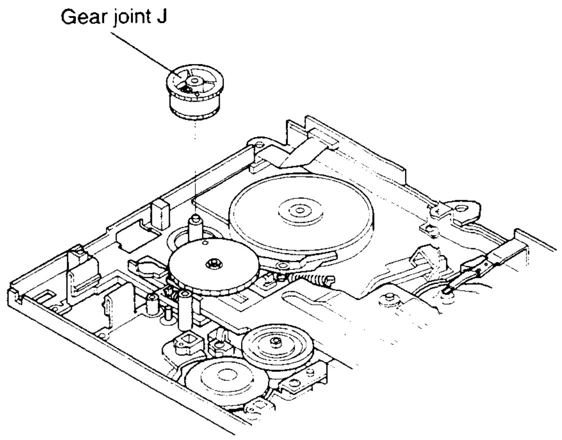

Gear joint J

Fig. 2-31-1

(Installation)

① Apply grease (PG-641)[859D055030] to the new gear joint J on the whole circumference of the small cogwheel as shown in Fig. 2-31-2.

② Fix the gear joint J to the shaft so that the matching mark of the gear joint J aligns with that of the main gear as shown in Fig. 2-30-4.

③ Turn the deck the right side up, make sure that the matching mark of the gear pinch aligns with that of the gear joint J. (When turning the deck, hold the gear joint J, in place.)(Refer to Fig. 2-31-3)

④ Install the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the installation method.)

⑤ Install the reel belt. (Refer to Para. 2-28 for the installation method.)

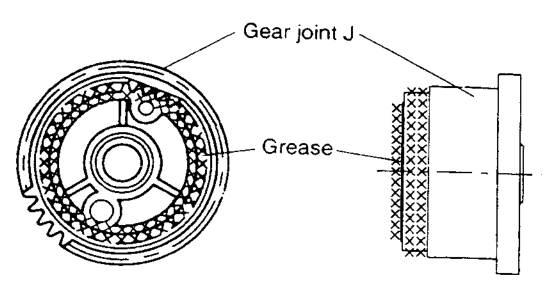

Gear joint J
Grease

Fig. 2-31-2

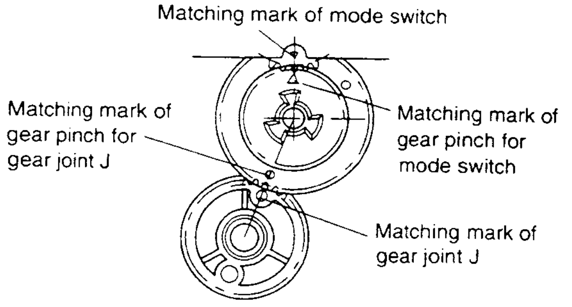

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-31-3

2-32 Capstan Brake and Capstan Brake Spring

(Removal)

① Remove the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Remove the main gear J. (Refer to Para. 2-30 for the removal method.)

④ Raise the capstan brake upward to remove it along with the capstan brake spring. (Refer to Fig. 2-32-1.)

(Installation)

① Install the capstan brake and the capstan brake spring.

② Install the main gear J. (Refer to Para. 2-30 for the installation method.)

③ Install the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the installation method.)

④ Fasten the reel belt. (Refer to Para. 2-28 for the installation method.)

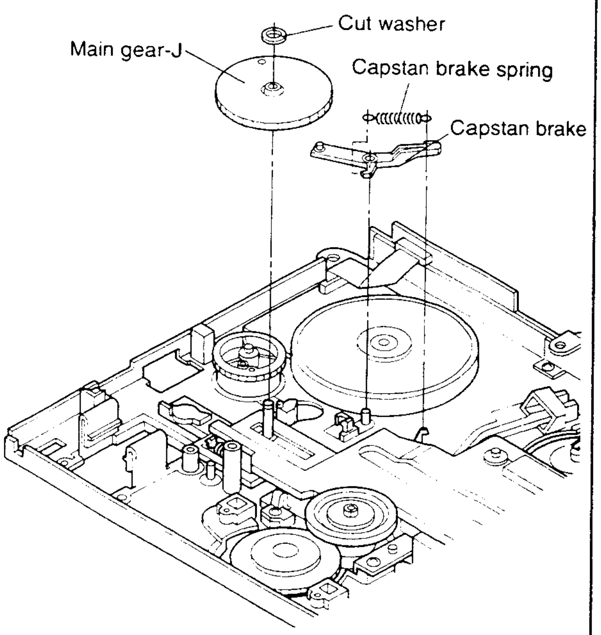

Cut washer
Main gear-J
Capstan brake spring
Capstan brake

Fig. 2-32-1

2-33 Plate J, Roller B, and Cam Plate B

(Removal)

① Remove the two screws (ⓐ and ⓑ) to remove the plate J. (Fig. 2-33-1)

② Take off the cut washer fixed to the shaft of the loading arm (TU) to remove the roller B.

③ Remove the reel belt.
(Refer to Para. 2-28 for the removal method.)

④ Remove the belt pulley.
(Refer to Para. 2-28 for the removal method.)

⑤ Remove the loading motor assembly (which holds the motor holder).
(Refer to Para. 2-29 for the removal method.)

⑥ Remove the main gear J.
(Refer to Para. 2-30 for the removal method.)

⑦ Slide the cam plate B to the left (the direction shown by the arrow) to remove it.

(Installation)

① Apply grease (G) [859D055050] to the area shown in Fig. 2-33-2 of the new cam plate B.

② Align the loading arms TU and SP so that the matching marks of the cogs align. (Refer to Fig. 2-37-3)

③ Passing part A of the cam plate B under cam spring B insert it into the hole on the side of the main plate, as shown by the continuous line. (Refer to Fig. 2-33-1)

④ While keeping the rear section of cam plate B raised, align the cam plate B and the cam gear R so that the ○ mark on the cam plate B aligns with the part A on the cam gear R as shown in Fig.2-33-3 (Fig. A). Still keeping the rear of cam plate B raised, slide it to the right until the △ mark on cam plate B and aligns with the part B on the cam gear R, refer Fig. 2-33-3 (Fig. B). From this position lower the rear of the cam plate B unto the already aligned loading gears TU and SP, refer 2 above. Shift the sub off lever and the main brake TU in the directions shown by the arrows to install them. (Refer to Fig. 2-33-1)

⑤ Fix the roller B to the shaft of the loading arm (TU) and secure it with the new cut washer.

⑥ Install the plate J and secure it with the two screws (ⓐ and ⓑ).

⑦ Install the main gear J.
(Refer to Para. 2-30 for the installation method.)

⑧ Install the loading motor assembly (which holds the motor holder).
(Refer to Para. 2-29 for the installation method.)

⑨ Install the belt pulley.
(Refer to Para. 2-28 for the installation method.)

⑩ Fasten the reel belt.
(Refer to Para. 2-28 for the installation method.)

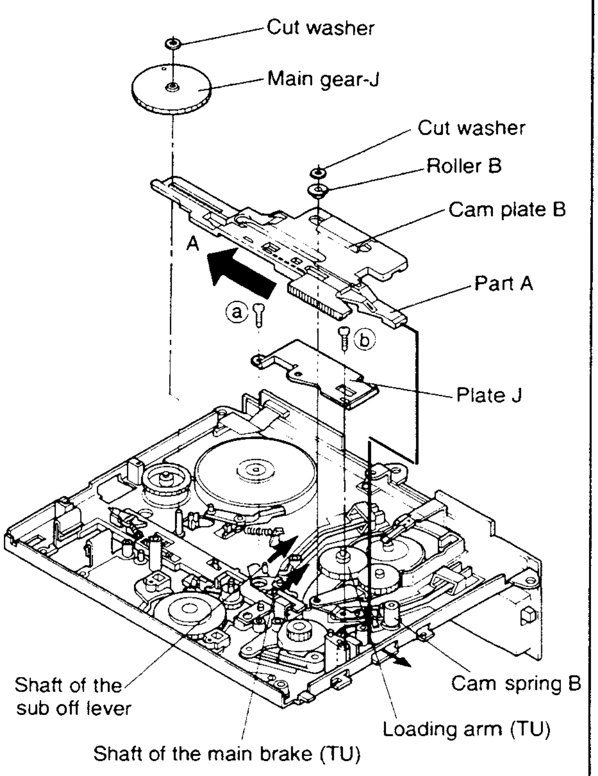

Cut washer
Main gear-J
Cut washer
Roller B
Cam plate B
A
Part A
ⓐ
ⓑ
Plate J
Shaft of the sub off lever
Cam spring B
Loading arm (TU)
Shaft of the main brake (TU)

Fig. 2-33-1

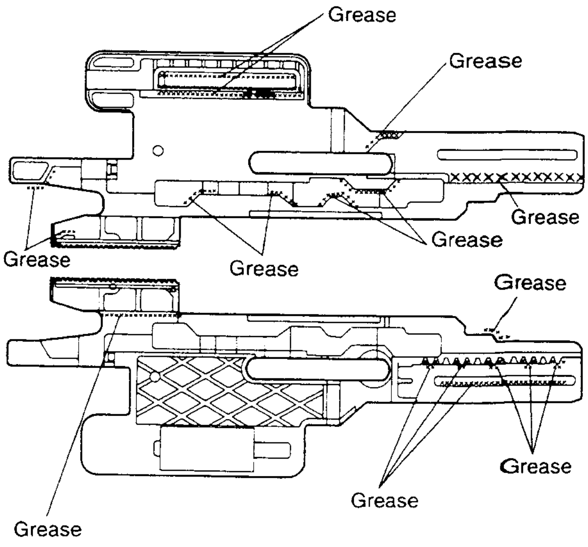

Grease
Grease
Grease
Grease
Grease
Grease
Grease
Grease
Grease
Grease

Fig. 2-33-2

2-34 Cam Gear R, Charge Lever, and Tension Off Lever

(Removal)

① Remove the cassette housing.
(Refer to Para. 2-1 for the installation method.)
② Turn the deck the right side up and detach the tension spring. (Refer to Fig. 2-34-4.)
③ Remove the charge assembly.
(Refer to item ② of Para. 2-18 for the removal method.)
④ Remove the reel belt and the pulley belt.
(Refer to Para. 2-28 for the removal method.)
⑤ Remove the loading motor assembly (which holds the motor holder).
(Refer to Para. 2-29 for the removal method.)
⑥ Remove the main gear J.
(Refer to Para. 2-30 for the removal method.)
⑦ Remove the plate J, the roller B, and the cam plate B.
(Refer to Para. 2-33 for the removal method.)
⑧ Raise the cam gear R upward to remove it.
(Refer to Fig. 2-34-1.)
⑨ Remove the charge lever. (Refer to Fig. 2-34-1.)
⑩ Remove the tension off lever. (Refer to Fig. 2-34-1.)

(Installation)

① Let part A pass through part B shown in Fig. 2-34-1 to install the tension off lever.
② Fix the charge lever to the shaft.
③ Apply grease (PG-641) [859D055030] to the area shown in Fig. 2-34-2 of the new cam gear R.
(The groove and the flank of the outside circumference.)
④ Insert the cam gear R so that part A is on the upside, with the charge lever set fully to the right end. Slowly turn the charge lever in the direction shown by the arrow until it enters the groove in the cam gear R.
(Refer to Fig. 2-34-3)
⑤ Install the cam plate B, the roller B, and the plate J.
(Refer to Para. 2-33 for the installation method.)
⑥ Install the main gear J.
(Refer to Para. 2-30 for the installation method.)
⑦ Install the loading motor assembly (which holds the motor holder).
(Refer to Para. 2-29 for the installation method.)
⑧ Install the belt pulley and the reel belt.
(Refer to Para. 2-28 for the installation method.)
⑨ Hook the tension spring in the position shown in Fig. 2-34-4.
⑩ Install the charge assembly.
(Refer to Item ⑤ of Para. 2-18 for the installation method.)
⑪ Install the cassette housing.
(Refer to Para. 2-1 about the installation method.)

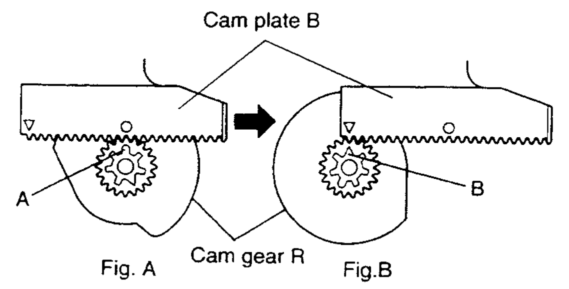


Fig. 2-33-3

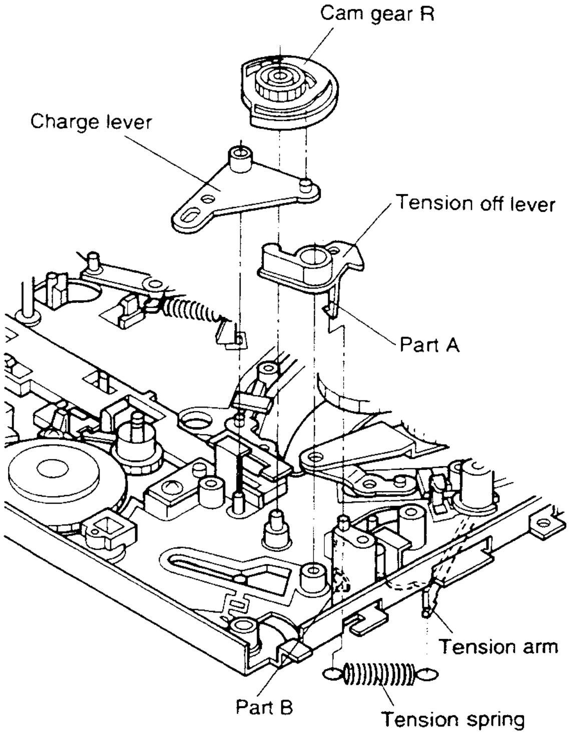


Fig. 2-34-1

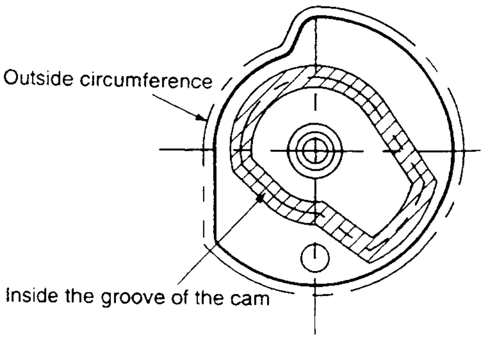


Fig. 2-34-2

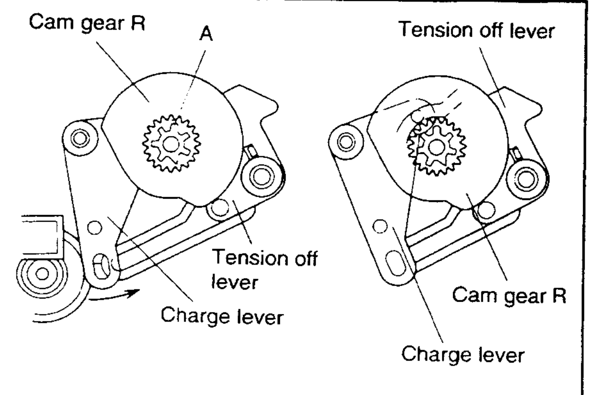

Cam gear R
A
Tension off lever
Tension off lever
Charge lever
Cam gear R
Charge lever

Fig. 2-34-3

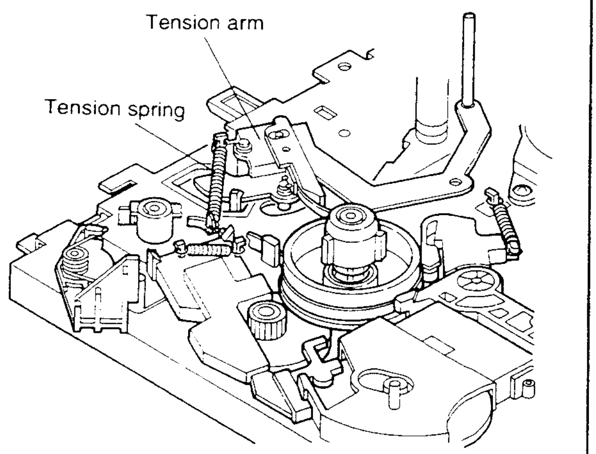

Tension arm
Tension spring

Fig. 2-34-4

2-35 Reel Idler Assembly

(Removal)

① Remove the reel belt and the belt pulley.
(Refer to Para. 2-28 for the removal method.)

② Remove the two screws (ⓐ and ⓑ) holding the reel idler assembly.

③ Unfasten the two catches shown in Fig. 2-35-2 and push the reel idler assembly to remove it, with the deck right side up.

(Installation)

① Insert the part B of the reel idler assembly under the plate cam B as shown in Fig. 2-35-1 and insure projection A enters the hole on the main plate. Position the reel idler assembly so that its screw holes are aligned and secure it with the two screws (ⓐ and ⓑ).
(Fig. 2-35-3 shows its appearance, viewing from the top.)

② Install the belt pulley and the reel belt.
(Refer to Para. 2-28 for the installation method.)

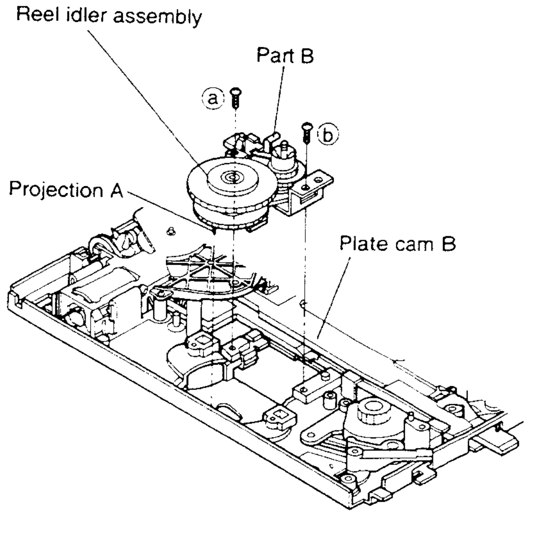

Reel idler assembly
Part B
ⓐ
ⓑ
Projection A
Plate cam B

Fig. 2-35-1

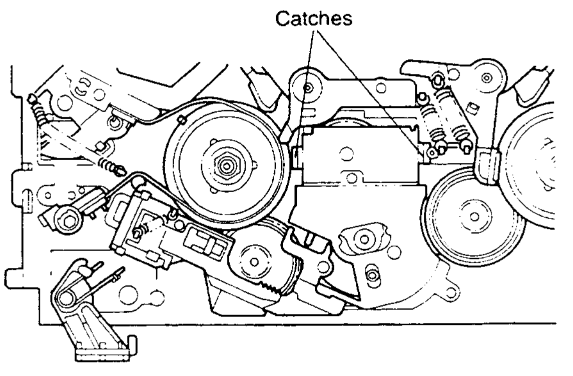


Fig. 2-35-2

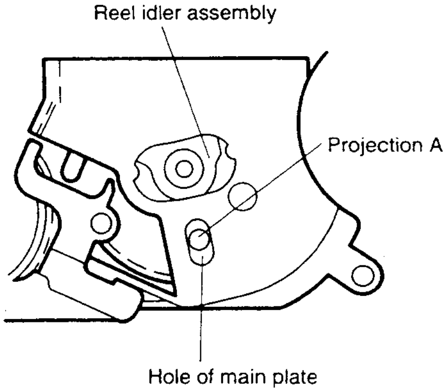

Reel idler assembly
Projection A
Hole of main plate

Fig. 2-35-3

2-36 Cam Plate C and Cam Spring C

(Removal)

① Remove the reel belt and the belt pulley. (Refer to Para. 2-28 for the removal method.)

② Remove the reel idler assembly. (Refer to Para. 2-35 for the removal method.)

③ Remove the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

④ Remove the main gear-J. (Refer to Para. 2-30 for the removal method.)

⑤ Remove the plate-J, the roller-B, and the cam plate-B. (Refer to Para. 2-33 for the removal method.)

⑥ Remove the cam spring-C. (Refer to Fig. 2-36-1.)

⑦ Slide the cam plate-C to the left end.

⑧ Unfasten the catch and raise the cam plate-C to remove it. (refer to Fig. 2-36-1.)

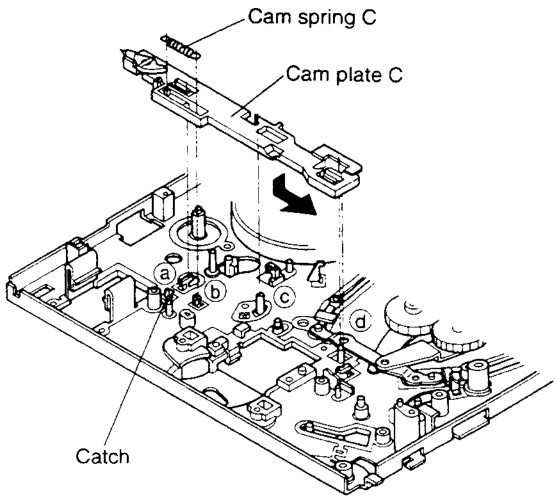

Cam spring C
Cam plate C
a
b
c
d
Catch

Fig. 2-36-1

(Installation)

① Apply grease(PG-641)[859D055030] to the area shown in Fig. 2-36-2 of the new cam plate-C.

② Position the cam plate-C so that the four points(ⓐ,ⓑ, ⓒ and ⓓ) shown in Fig. 2-36-1 enter into the matching holes and slide it to the right end.

③ Install the cam spring-C.

④ Install the cam plate-B, the roller-B, and the plate-J. (Refer to Para. 2-33 for the installation method.)

⑤ Install the main gear-J. (Refer to Para. 2-30 for the installation method.)

⑥ Install the loading motor assembly(which holds the motor holder). (Refer to Para. 2-35 for the installation method.)

⑦ Install the reel idler assembly. (Refer to Para. 2-35 for the installation method.)

⑧ Install the belt pulley and the reel belt. (Refer to Para. 2-28 for the installation method.)

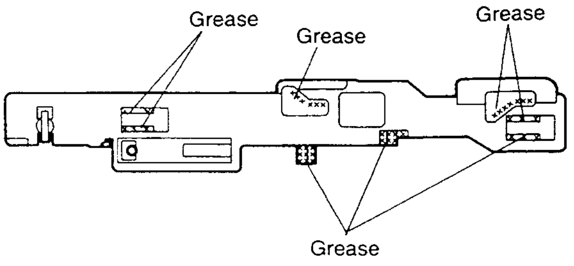


Fig. 2-36-2

2-37 Loading Arm(SP, TU)

(Removal)

① Remove the reel belt and the belt pulley. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Remove the main gear-J. (Refer to Para. 2-30 for the removal method.)

④ Remove the plate-J, the roller-B, and the cam plate-B. (Refer to Para. 2-33 for the removal method.)

⑤ Raise the loading arms upward, first SP and then TU, to remove them.(Refer to Fig. 2-37-1)

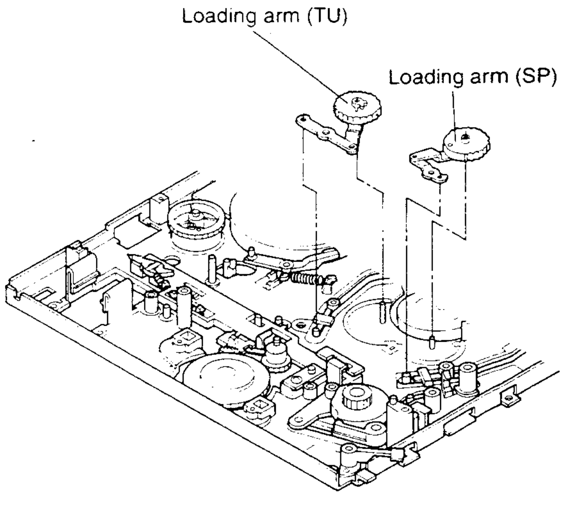


Fig. 2-37-1

(Installation)

① Move the takeup and supply tape guides to the unloaded position. If the supply tape guide is in the loaded position it will be necessary to shift the tension arm in the direction of the arrow in Fig. 2-37-2 at the same time moving the supply tape guide to the unloading position.

② Place the new loading arm(TU) in the position shown in Fig. 2-37-1, then place the loading arm(SP) in the position shown in Fig. 2-37-1 at the same time aligning the marks on the cogs, refer Fig. 2-37-3(shaded area).

③ Apply grease(G)[859D055050] to the area, which touches the cogwheel of the loading arm(TU) when the loading arms(SP and TU) are shifted fully to the loading direction, and grease(G)[859D055050] to the gear portion which gears with the plate cam B. (Refer to Fig.2-37-4.)

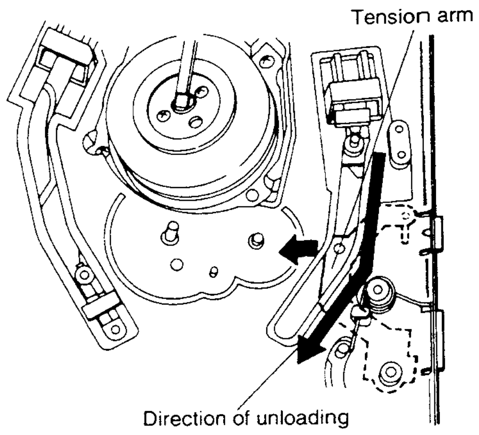


Fig. 2-37-2

④ Install the cam plate-B, the roller-B, and the plate-J.
(Refer to Para. 2-33 for the installation method.)

⑤ Install the main gear-J.
(Refer to Para. 2-30 for the installation method)

⑥ Install the loading motor assembly (which holds the motor holder).
(Refer to Para. 2-29 for the installation method.)

⑦ Install the belt pulley and the reel belt.
(Refer to Para. 2-28 for the installation method.)

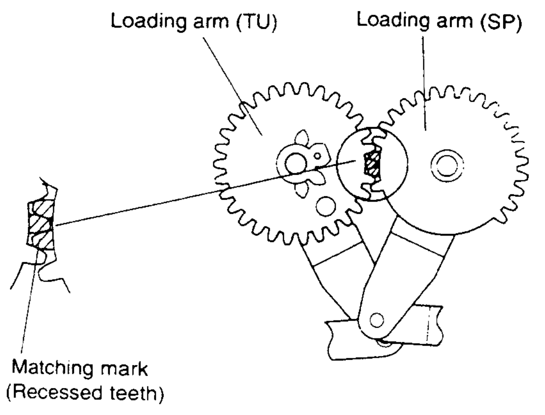

Loading arm (TU)
Loading arm (SP)
Matching mark
(Recessed teeth)

Fig. 2-37-3

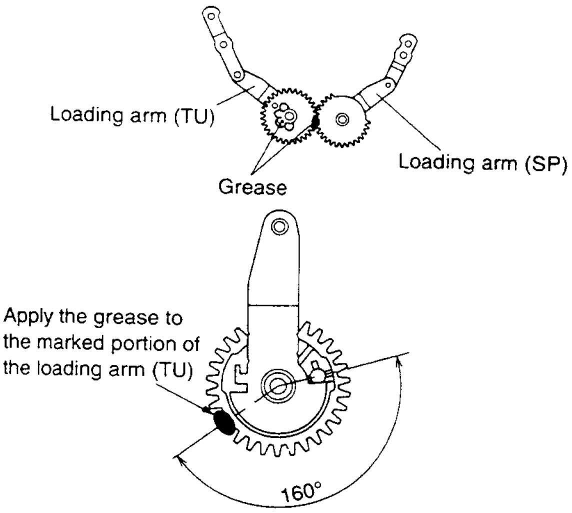

Loading arm (TU)
Grease
Loading arm (SP)
Apply the grease to the marked portion of the loading arm (TU)
160°

Fig. 2-37-4

2-38 Capstan Motor and Lead Card

Note: During removal and installation of the capstan motor, take care not to touch or score the tape running surface, and insure there is no grease on the outside of the motor's rim.

(Removal)

① Unfasten the reel belt.

② Disconnect the lead card, connected to the PCB of the capstan motor and the PCB-HEAD-AMP.
(Refer to Fig. 2-38-1.)

③ Turn the deck the right side up, remove the three screws shown in Fig. 2-38-2 to remove the capstan motor.

Note: During removal, support the capstan motor assembly when it is not secured by its fastening screws. Take care not to touch other parts.

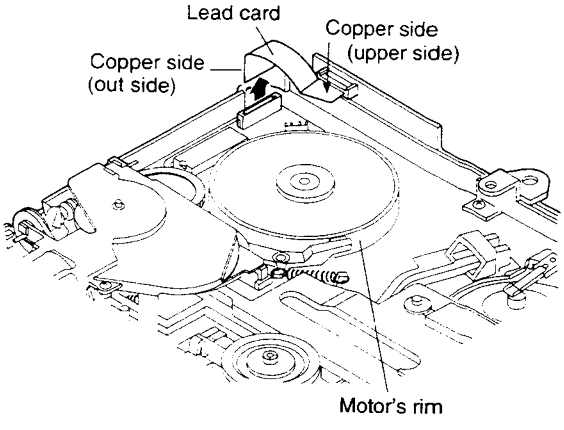

Lead card
Copper side
(upper side)
Copper side
(out side)
Motor's rim

Fig. 2-38-1

(Installation)

① Reverse the deck, position the capstan motor so that the capstan brake is on the outside of the capstan motor.

② Turn the deck the right side up, secure the capstan motor with the three screws shown in Fig. 2-38-2.

③ Bend the new lead card as shown in Fig.2-38-3 and connect it to the connectors of the PCB of the capstan motor and the PCB-HEAD-AMP so that copper side appears as shown in Fig. 2-38-1. Take care not to touch the rotor of the capstan motor.

④ Install the reel belt.(Refer to Para. 2-28 for the installation method.)

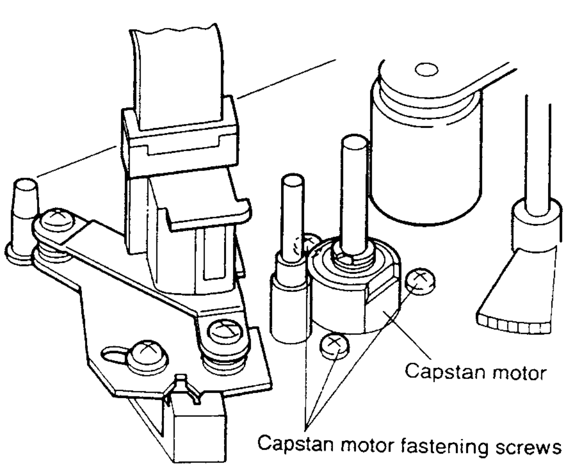

Capstan motor
Capstan motor fastening screws

Fig. 2-38-2

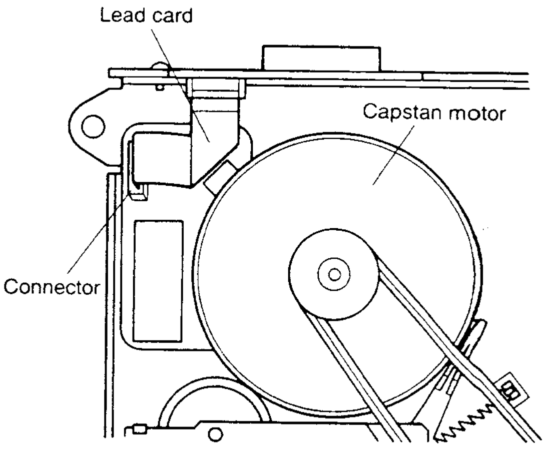

Lead card
Capstan motor
Connector

Fig. 2-38-3

2-39 A/C Head Assembly

(Removal)

Note: During installation of A/C head assembly, take care not to touch or score the tape running surface.

① Lift the stopper shown in Fig. 2-39-1 upward and disconnect the lead connector (bare wire), which is connected to the PCB-A/C-HEAD.

② Remove the two screws(ⓐ and ⓑ) holding the A/C head assembly to the main plate, and to remove the A/C head assembly. (Refer to Fig. 2-39-2.)

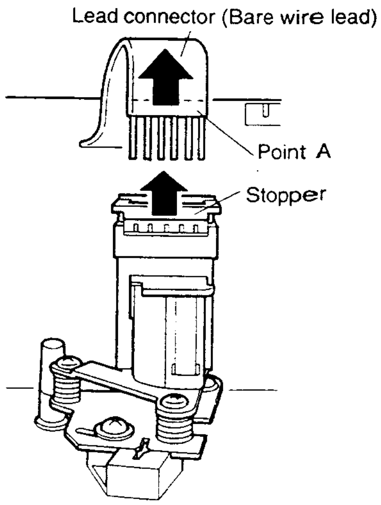

Lead connector (Bare wire lead)
Point A
Stopper

Fig. 2-39-1

(Installation)

① Make sure that the spring(A/C earth spring) is as shown in Fig. 2-39-3.

② Place the A/C head assembly in the position shown in Fig. 2-39-2 and secure it with the two screws(ⓐ and ⓑ).

③ Shift part A downward and lower the stopper. Connect the lead connector to the connector on the PCB-A/C-HEAD as shown in Fig. 2-39-1.

Note: Conduct the A/C head adjustment and the phase adjustment as outlined in Para. 3-3 and 3-4 after the new A/C head is installed.

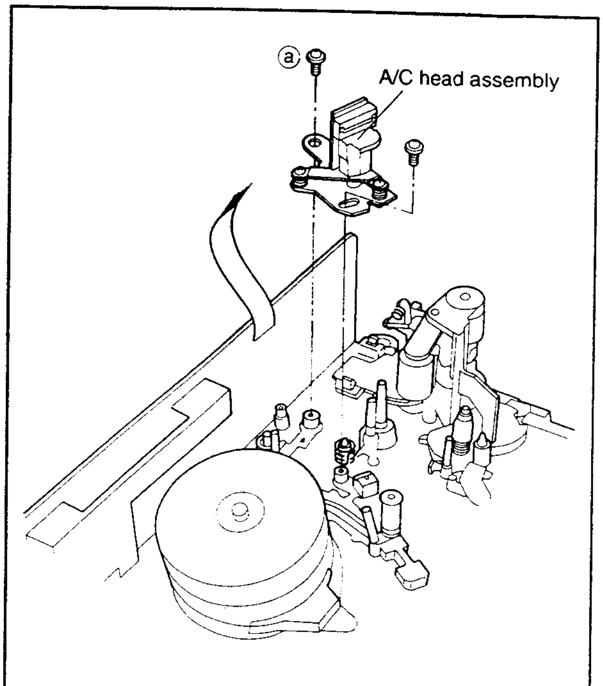


Fig. 2-39-2

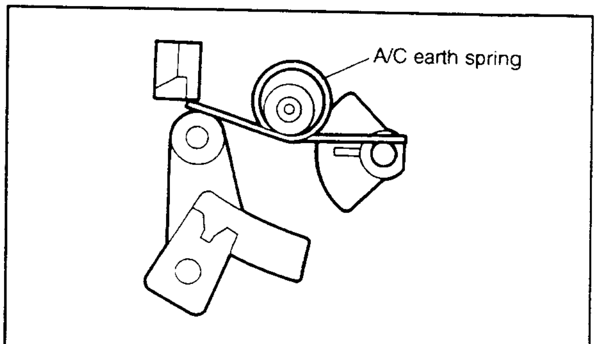


Fig. 2-39-3

2-40 A/C Head

(Removal)

① Disconnect the lead connector connected to the PCB-A/C-HEAD. (Refer to Item ① of Para. 2-39 for the removal method.)

② Remove the three screws(ⓐ,ⓑ and ⓒ), shown in Fig. 2-40-1 to remove the A/C head.

③ Unsolder the PCB-A/C HEAD from the A/C head.(Refer to Fig. 2-40-1.

(Installation)

① Install the A/C head with the A/C spring and the three screws(ⓐ,ⓑ and ⓒ) as shown in Fig. 2-40-1.

Note: When installing the A/C head on the A/C plate, the base plate of the A/C head must be parallel to the A/C plate and the spacing between them should be as specified in Fig. 2-40-2.

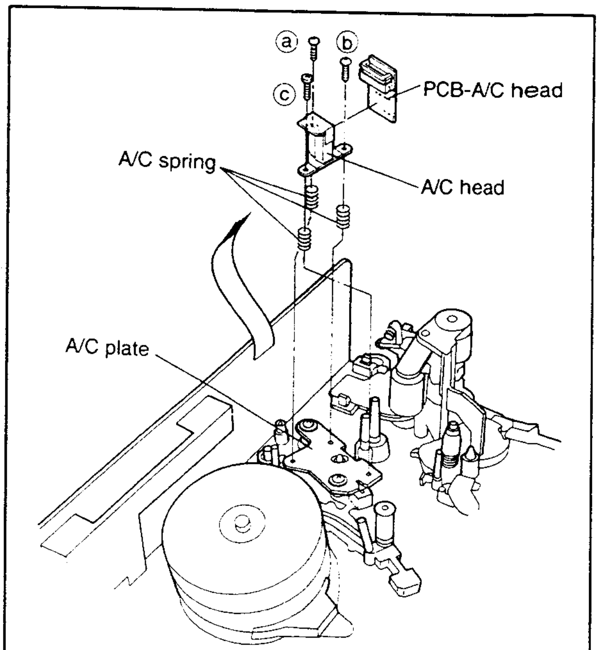


Fig. 2-40-1

② Connect the lead connector to the PCB-A/C-HEAD. (Refer to Item ③ of Para. 2-39 for the installation method.)

③ Perform the A/C head adjustment as outlined in Para. 3-3 and the phase adjustment as outlined in Para. 3-4.

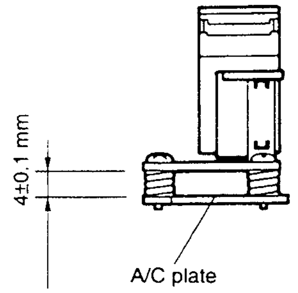


Fig. 2-40-2

2-41 Supply & Takeup Guide Rollers

(Removal)

① Loosen the set screws with a hexagon key so that the guide rollers rotate freely.

② Turn the height adjustment screws at the top of the guide rollers counterclockwise with a height adjustment screwdriver to loosen them. Lift the guide roller upward to remove them from the tape guides.(Refer to Fig. 2-41-1)

(Installation)

① Make sure that the rubber rings are fixed to the fastening thread portions of the new guide rollers.

② Perform the following steps ③ to ⑤ to seat in the rubber rings.

③ Slowly turn the guide rollers clockwise until the rubber rings are firmly seated.

④ Turn the guide rollers a further 1/6 of a turn clockwise and then turn them one turn counter-clockwise.

⑤ Slowly turn the guide rollers clockwise until they become firmly seated again. Turn the guide rollers a further 1/6 of a turn clockwise.

⑥ Secure the guide rollers lightly with the set screws. Perform the mechanism check and adjustment of the FM envelope as outlined in Para. 3-2.

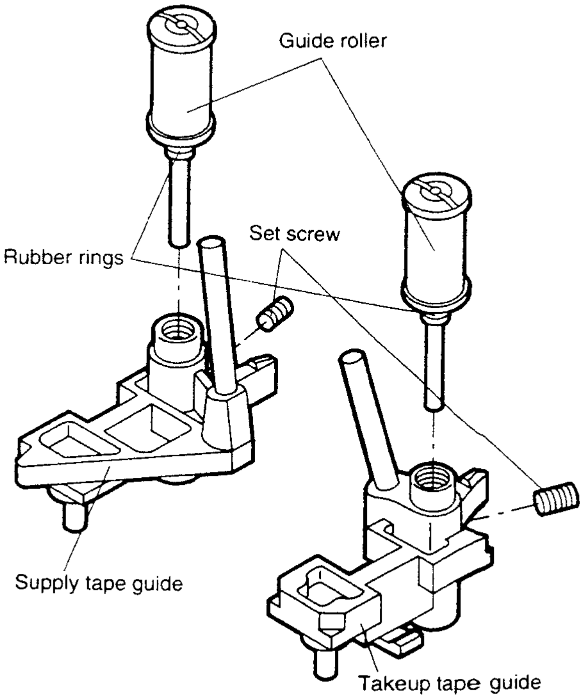


Fig. 2-41-1

2-42 Cleaning Roller, Cleaning Arm, Cleaning Lever, and Cleaning Spring

(Removal)

① Remove the PCB-HEAD-AMP. (Refer to Para. 2-8 for the removal method.)

② Unfasten the catch to remove the cleaning roller.(Refer to Fig. 2-42-1)

3③ Turn part A of the cleaning assembly clockwise as shown in Fig. 2-42-2 to release the catch part B Fig. 2-42-2 and Fig. 2-42-3(c). Release the catch part E and remove the cleaning assembly from the shaft.

④ Remove the cleaning spring to detach the cleaning arm and the cleaning lever.

(Installation)

① Attach the cleaning arm to the cleaning lever and turn it clockwise as shown in Fig. 2-42-3(c). Make sure that the cleaning arm and the cleaning lever turn without binding.

② Hook one end of the cleaning spring with the boss (point C), projecting from the cleaning arm, and the other end to point D of the cleaning lever as shown in Fig. 2-42-3(d).

③ Place the cleaning assembly in the position shown in Fig. 2-42-1, and in the direction shown in Fig. 2-42-2(b). Turn the part A, shown in Fig. 2-42-2, counterclockwise to set the part B under the A/C plate of the A/C head assembly. Make sure that the spring hooks with the boss of the main plate shown in Fig. 2-42-2. Shift the part A in the direction shown by the arrow and release to make sure that it returns.

④ Insert the cleaning roller into the position shown in Fig. 2-42-1 to install it.

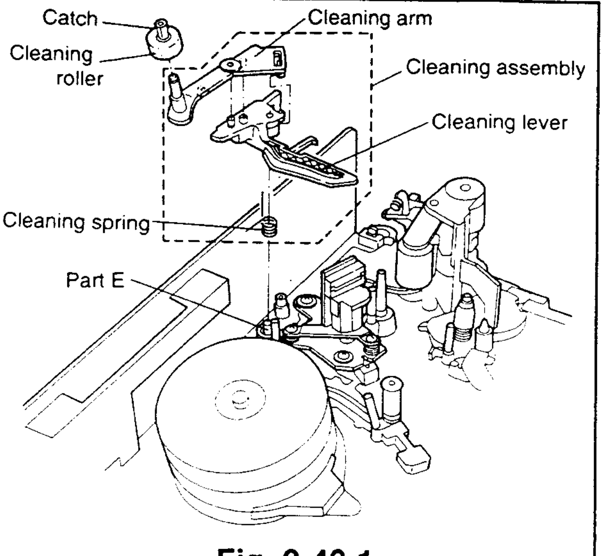

Catch
Cleaning roller
Cleaning arm
Cleaning assembly
Cleaning lever
Cleaning spring
Part E

Fig. 2-42-1

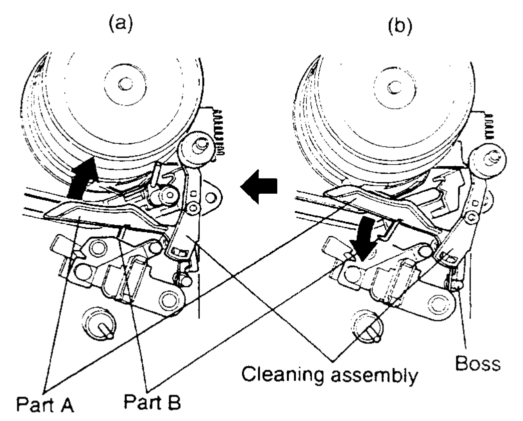

(a)
(b)
Part A
Part B
Cleaning assembly
Boss

Fig. 2-42-2

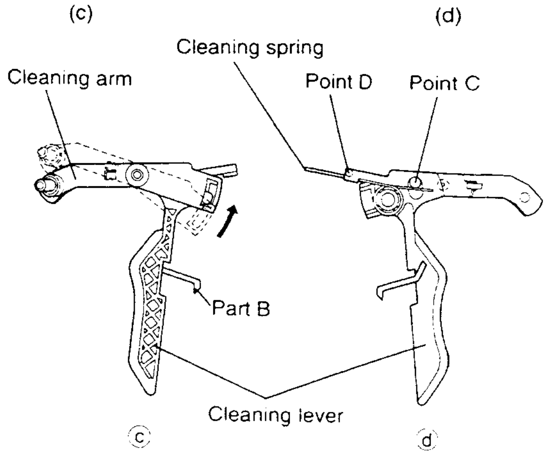

(c)
(d)
Cleaning spring
Cleaning arm
Point D
Point C
Part B
Cleaning lever
c
d

Fig. 2-42-3

2-43 Supply & Takeup Tape Guide Assemblies

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the PCB-HEAD-AMP. (Refer to Para. 2-8 for the removal method.)

③ Remove the cleaning assembly. (Refer to item ④ of Para. 2-42 for the removal method.)

④ Unscrew the three screws(ⓐ,ⓑ and ⓒ) to remove the drum base together with the drum assembly. (Refer to Fig. 2-43-1.)

⑤ Slide the supply and takeup tape guide assemblies to the end of the loaded position by either of the following methods.

- Supply voltage (approximately 5V plus voltage on the red wire) to the loading motor as in ② of the removal method in Para. 2-19.
- Turn part A of pulley worm J by hand, in the direction shown by the arrow (a) as shown in Fig. 2-43-3. Raise the supply and takeup tape guide assemblies upward to remove them.

(Installation)

① Apply grease(PG-641)[859D055030] to the area shown in Fig. 2-43-2 of the supply tape guide assembly.

② Install the supply and takeup tape guide assemblies so that they respectively enter the holes at the ends of the loading arms(SP and TU)attached to the reverse side of the deck as shown in Fig. 2-43-1.

③ Slide the supply and takeup tape guide assemblies to the unloaded position, by either of the following methods so that the upper hole of the mode switch aligns with that of the cogwheel as shown in Fig. 2-43-4.

- Supply voltage (approximately 5V), reversing the polarity used in ④ of the removal method, to the loading motor as ⑤ of the installation method in Para. 2-19.
- Turn part A of the pulley worm J by hand, in the direction shown by the arrow (b) as shown in Fig. 2-43-3.

④ Make sure that the hole of the gear joint J aligns with the matching mark of the main plate, and the matching mark of the gear pinch with that of the mode switch as shown in Fig. 2-43-5.

⑤ Install the drum base on which the drum assembly is attached and secure it with the three screws (ⓐ,ⓑ and ⓒ) as shown in Fig. 2-43-1. (Tighten the screws in the order ⓐ→ⓑ→ⓒ.)

⑥ Install the cleaning assembly. (Refer to Item ③ of Para. 2-42 for the installation method.)

⑦ Install the PCB-HEAD-AMP. (Refer to Para. 2-8 for the installation method.)

⑧ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

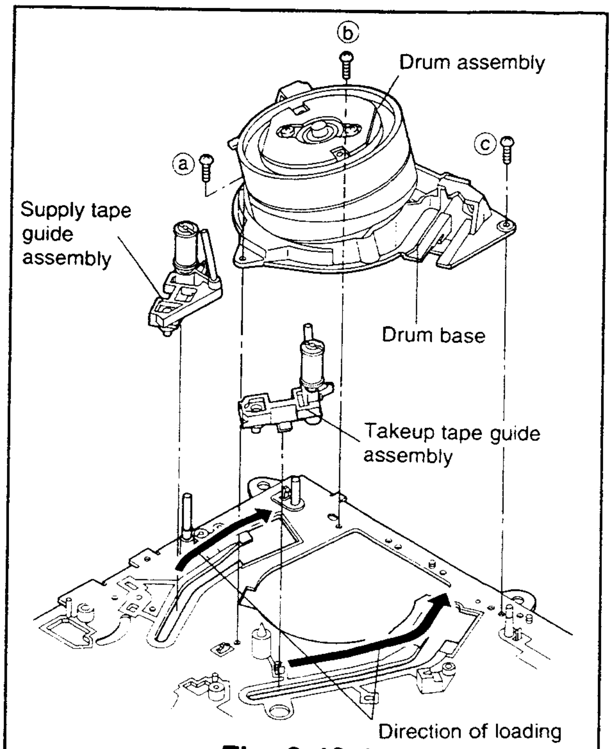


Fig. 2-43-1

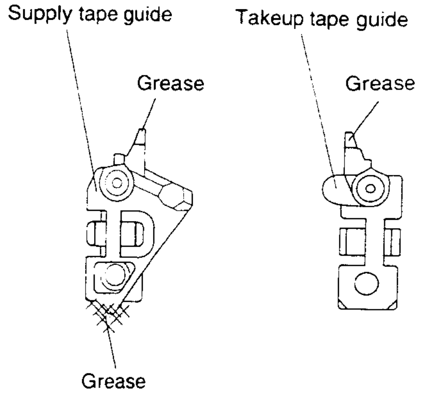


Fig. 2-43-2

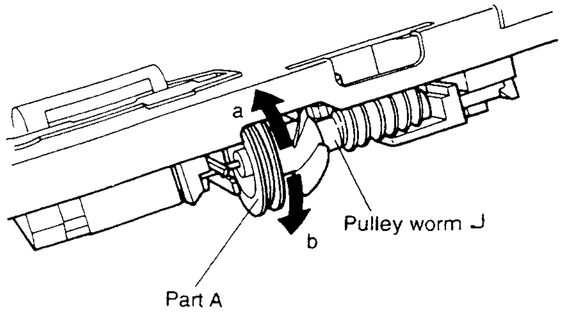


Fig. 2-43-3

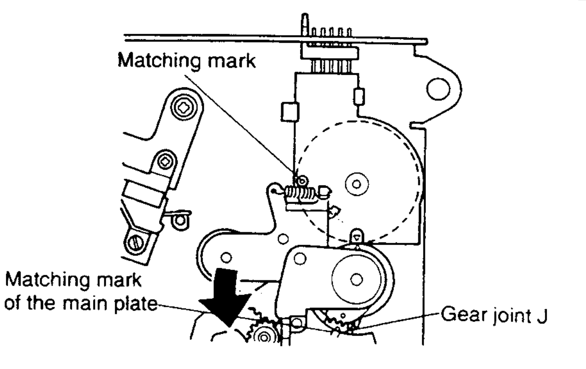

Matching mark
Matching mark of the main plate
Gear joint J

Fig. 2-43-4

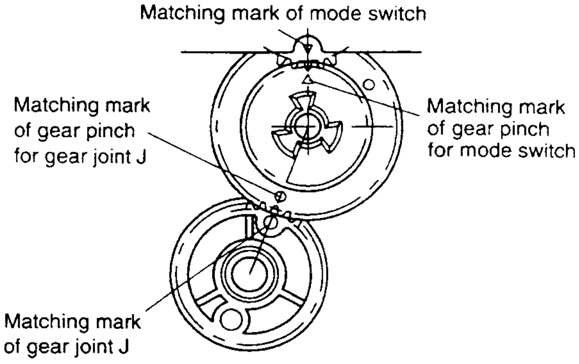

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-43-5

2-44 Drum base spring

(Removal)

① Remove the drum base spring between the drum base and the drum assembly. (Refer to Fig. 2-44-1.)

Note: If the drum base spring is difficult to remove, remove the drum assembly in advance. (Refer to Para.2-10)

Note: During removal and installation of the drum assembly, do not touch the tape running surface with your hands.

(Installation)

① Set the drum base spring in the gap between the drum base and the drum assembly. Make sure that the drum base spring is secure enough not to fall out.

② Apply grease(PG-641)[859D055030] to the area of the drum base spring as shown in Fig. 2-44-1.

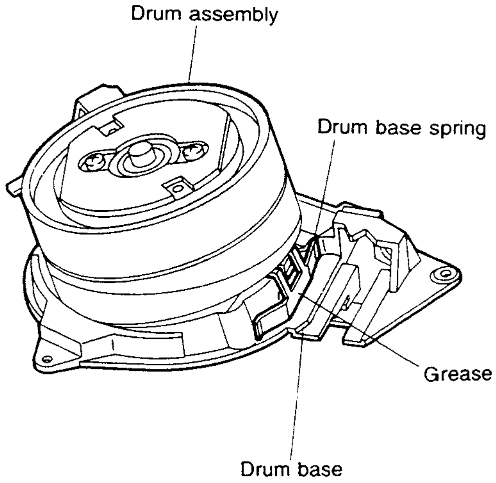

Drum assembly
Drum base spring
Grease
Drum base

Fig. 2-44-1

2-45. Replacement of ASSY IMPEDANCE ROLLER

(Removal)

① Unfasten the catch to remove the FLY WHEEL J.

② Remove the IMPEDANCE ROLLER SPRING-J from the catch ⓐ shown in Fig. 2-45-2.

③ Shift the ASSY IMPEDANCE ROLLER in the direction shown by the arrow. Unfasten the catch ⓑ and raise the ASSY IMPEDANCE ROLLER to remove it from the HOLDER TG.

④ Unfasten two catches of the HOLDER TG on the reverse side to remove the HOLDER TG. [Fig. 2-45-4]

(Installation)

① Mount the HOLDER TG on the MAIN PLATE. [Fig. 2-45-4]

② Hook the one side of the IMPEDANCE ROLLER SPRING-J to the catch ⓒ and the other side to the catch ⓓ to install the IMPEDANCE ROLLER SPRING-J on the ASSY IMPEDANCE ROLLER. [Fig. 2-45-3]

③ Install the ASSY IMPEDANCE ROLLER, to which the IMPEDANCE ROLLER SPRING-J is attached, on the HOLDER TG.

NOTE: Installation of the ASSY IMPEDANCE ROLLER will be easier by pulling the PCB-HEAD-AMP slightly in the direction shown by the arrow in Fig. 2-45-4.

④ Make sure that the IMPEDANCE ROLLER SPRING-J is hooked at the catch ⓐ of the HOLDER TG shown in the Fig. 2-45-5.

⑤ Install the FLY WHEEL J on the ASSY IMPEDANCE ROLLER so that the side whose hole entrance is cut out diagonally looks up.

⑥ Make sure that three catches are tightly hooked on the FLY WHEEL. If they are not, hook them tightly with the tweezers. [Fig. 2-45-1]

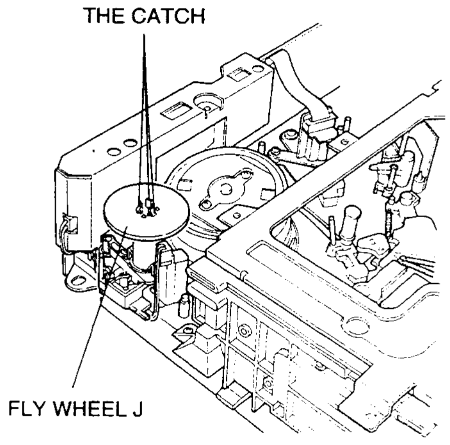

THE CATCH
FLY WHEEL J

Fig. 2-45-1

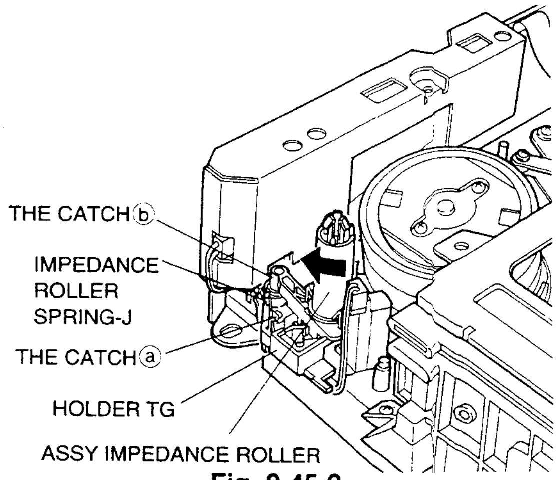

THE CATCHⓑ
IMPEDANCE ROLLER SPRING-J
THE CATCHⓐ
HOLDER TG
ASSY IMPEDANCE ROLLER

Fig. 2-45-2

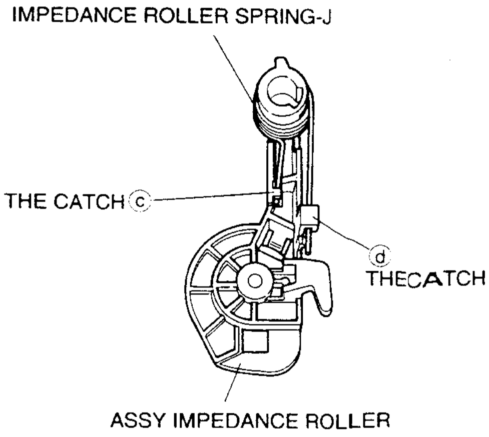

IMPEDANCE ROLLER SPRING-J
THE CATCHⓒ
ⓓ THECATCH
ASSY IMPEDANCE ROLLER

Fig. 2-45-3

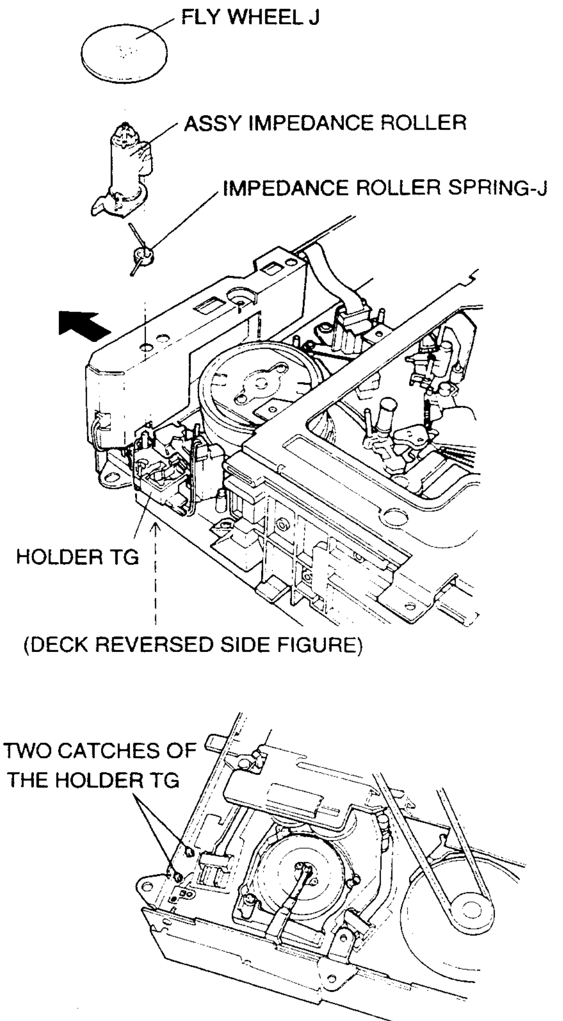

FLY WHEEL J
ASSY IMPEDANCE ROLLER
IMPEDANCE ROLLER SPRING-J
HOLDER TG
(DECK REVERSED SIDE FIGURE)
TWO CATCHES OF THE HOLDER TG

Fig. 2-45-4

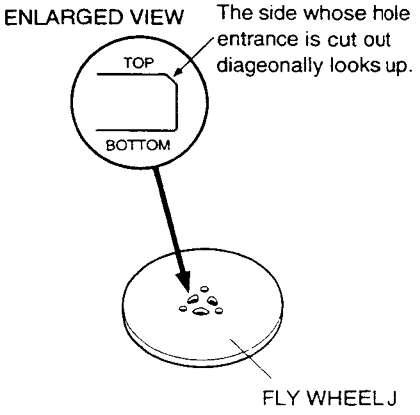

ENLARGED VIEW
The side whose hole entrance is cut out diageonally looks up.
TOP
BOTTOM
FLY WHEEL J

Fig. 2-45-5

3. Interchangeability Adjustment of Mechanism

Note1: Tracking must be preset during the interchangeability adjustment of the mechanism. Digital tracking should be preset by short circuiting TP5A and TP5B on the PCB-MAIN.

Note2: The adjustment is performed in the playback mode, using the stair step signal of an alignment tape, connect an oscilloscope to TP2A and external Trig. From TP2H, unless otherwise specified.

3-1 Adjustment of Back-Tension and Tension Pole Position

Run a blank tape for several minutes to break in the reel disks and the transport before making the adjustment.

① Cut out the alignment tape [PM6KH3 : 859C339030] as shown in Fig. 3-1-2 this allows the boss to be adjusted while playing the tape by inserting the hexagon wrench through the round hole of the cassette housing shown in Fig. 3-1-1. (Take care not to let fragments of the cassette inside the cassette tape.)

② Playback an alignment tape which has a cut out.

③ Make sure that tip section A of the tension arm is between the divisions " 2 " and " 2.5 " on the main plate. (The divisions are numbered from the right to left.)

④ If tip section A of the tension arm is on the right of " 2 ", turn the boss clockwise. If A is on the left of " 2.5 ", turn it counter-clockwise.

⑤ Insert the back tension measuring jig(Part No. 859C346060) and set the VCR to the playback mode.

⑥ When the running of the tape becomes steady, make sure that the reading of the Back Tension Measuring Jig is within 50±6g-cm.

⑦ If the reading is over the specified value, replace the tension spring.

⑧ When the running of the tape is steady, check visually to make sure that the runout of the tension pole is 1mm or less.

⑨ If the runout is not within the specified value, replace the reel disk.

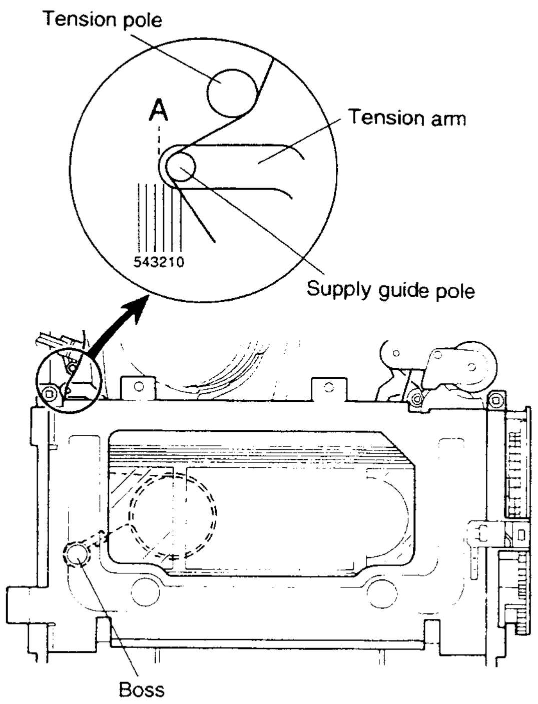


Fig. 3 - 1 - 1

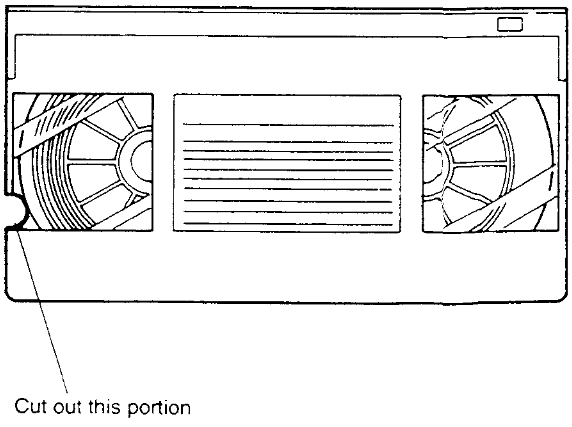


Fig. 3 - 1 - 2

3-2 Check and Adjustment of FM Envelope

3-2-1 Guide Roller Adjustment

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Preset tracking. (Refer to NOTE 1 in Para. 3.)

③ Check if the FM waveform is flat like A.
(Refer to Fig. 3-3-2)

④ Adjust the height of the supply guide roller if the leading portion (the entry side of the drum) of the FM waveform is not flat, like B or C. (Refer to Fig. 3-3-2) Adjust the height of the takeup guide roller if the trailing portion (the exit side of the drum) is not flat, like D or E.

3-2-2 Adjustment of Supply Guide Roller Height

① Loosen the set screw until the supply guide roller is held lightly when rotated.

② The supply guide roller may be low if the leading portion (the entry side of the drum) of the FM waveform is like B, and high if like C. Turn the adjusting screw at the top of the roller to adjust the height of it so that the FM waveform is flat like A.

- Turn the adjusting screw counter-clockwise if the roller is low.
- Turn the adjusting screw clockwise if the roller is high.

③ Coarsely adjust the phase as in Item 3-3-4.

3-2-3 Adjustment of Takeup Guide Roller Height

① Loosen the set screw until the takeup guide roller rotates lightly.

② The takeup guide roller may be low if the trailing portion (the exit side of the drum) of the FM waveform is like D, and high if like E. Turn the adjusting screw at the top of the roller to adjust the height so that the FM waveform is flat like A.

- Turn the adjusting screw counter-clockwise if the roller is low.
- Turn the adjusting screw clockwise if the roller is high.

③ Coarsely adjust the phase as in Item 3-2-4.

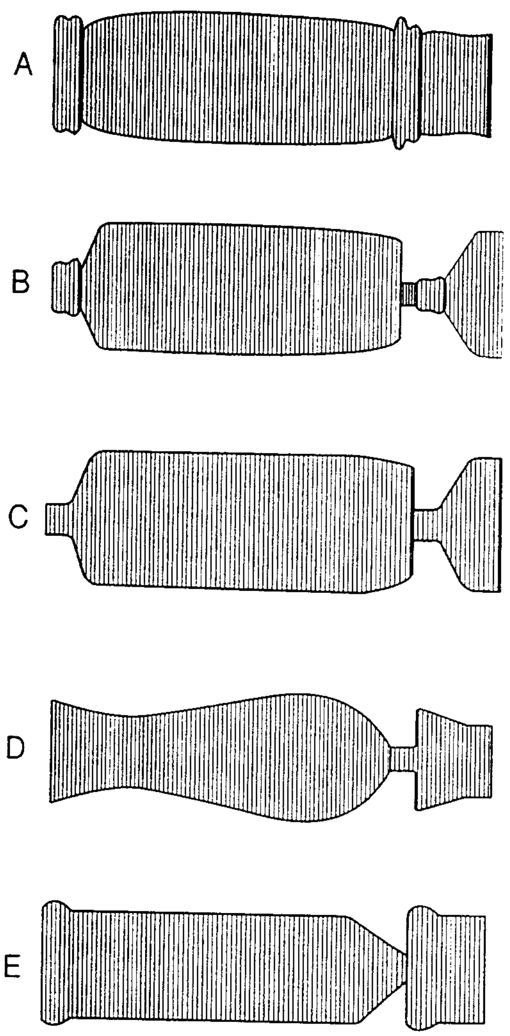


Fig. 3 - 2 - 1

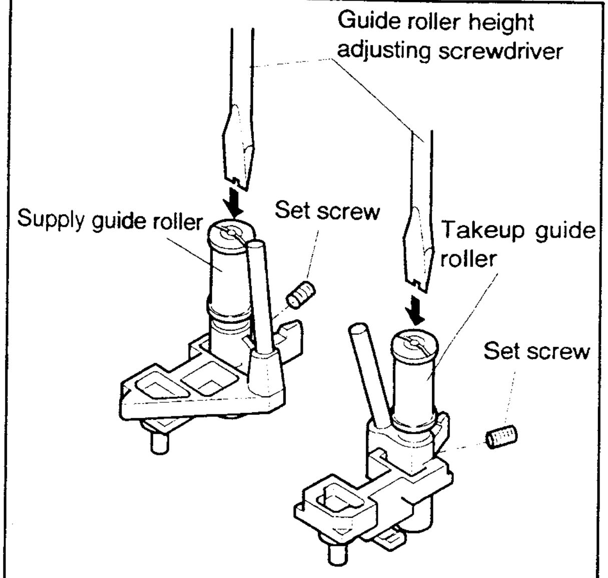


Fig. 3 - 2 - 2

3-2-4 Coarse Adjustment of Phase

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Preset tracking. (Refer to NOTE 1 in Para. 3.)

③ Check the FM waveform after checking and adjusting the guide rollers.

④ If the amplitude of the FM waveform is narrow like F because of out of phase, adjust it to maximum like G, as shown in Fig. 3-2-4 by the following procedure. Loosen the screw E , insert a screw driver into the groove at the Base A/C and the main plate, and shift the Base A/C right and left.

⑤ Tighten the screw E to secure the base-A/C in place.

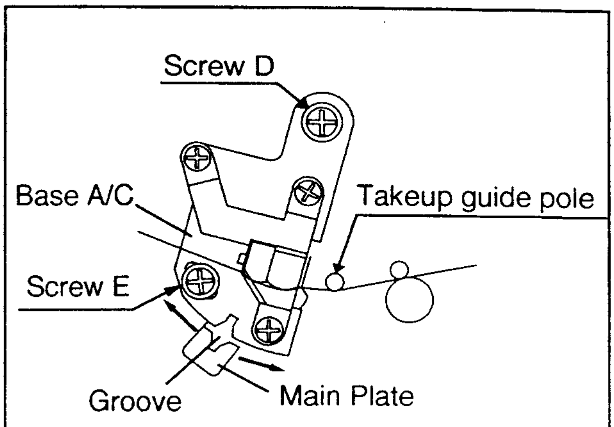


Fig. 3 - 2 - 3

3-2-5 Check of FM Waveform Flatness

① Play back the alignment tape.
[PM6KH3 : 859C339030]

Note: In the following adjustment, follow the next procedure for automatic/manual-selection and adjustment of tracking.

Models with a jog dial on front units.

- Turn the JOG dial while pressing the O.K.PROG. button on the VCR during playback.
- To switch from manual tracking back to automatic digital tracking, press the O.K.PROG. button on the VCR during playback.

Models without a jog dial on front units.

- For the manual tracking adjustment, press an up/down button during reproduction.
- To change the adjustment mode from manual to automatic in the tracking adjustment, press the up and down buttons at the same time.

② In the manual tracking mode, change tracking and make sure the amplitude is changeable while the FM signal remains flat.

③ Adjust tracking so that the amplitude of the FM waveform is maximum. Set the oscilloscope so the amplitude of the FM waveform is 5 division.

④ Adjust tracking so that the peak value of the FM waveform is 4 divisions. Check if the FM waveform B, C, D, and E are within the specified values shown in Fig. 3-2-5.

⑤ If the waveform is not within the specified value, repeat the procedure for checking and adjustment of FM envelope in Item 3-2 from the beginning.

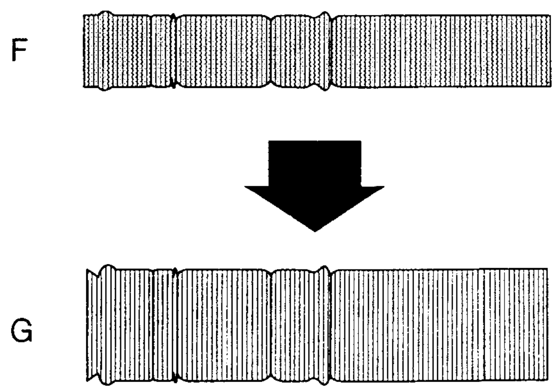
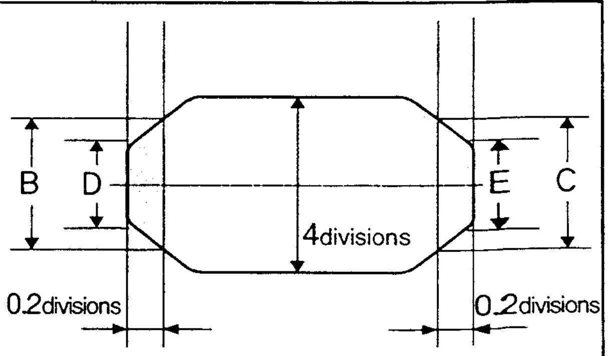


Fig. 3 - 2 - 4



B , C	At least 2.8 of the scale
D , E	At least 2.0 of the scale

Fig. 3 - 2 - 5

3-2-6 Check 1: Tape Running Condition on Guide Rollers (Refer to Fig. 3-2-6)

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Visually check if there is a space between the tape and the lower flange of the supply guide roller and takeup guide roller.

③ If there is no space, replace the tape guide as in Item 3-2-7.

④ If the supply tape guide is replaced, check the guide roller as in Item 3-2-1 and if the takeup tape guide is replaced, check the guide roller as in Item 3-2-1 and check the FM waveform flatness in Item 3-2-5.

⑤ Load and unload the tape several times alternately check that flatness of the FM waveform does not change.

⑥ If flatness changes, check if the A/C arm is loose. If it is not loose, replace the A/C arm and repeat the procedure of coarse adjustment of phase in Item 3-2-4.

3-2-7 Replacement of Tape Guides

① If the current tape guide has no marking, replace it with one with a red mark.

② If the current tape guide has a black mark, replace it with one with no mark. If this replacement is not effective, replace the tape guide with one with a red mark.

③ If the current tape guide has a red mark, replace it with another one with red mark.

3-2-8 Check 2: Tape Running Condition on Guide Rollers.

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Lightly press and release the top of the supply guide roller and takeup guide roller. Check if the FM waveform is quickly restored to the previous level.

③ If the waveform is not quickly restored, replace the tape guide as in Item 3-2-7.

④ If the supply tape guide is replaced, check the guide roller as in Item 3-2-1, and if the takeup tape guide is replaced, check the guide roller as in Item 3-2-1 and the check FM waveform flatness as in Item 3-2-5.

⑤ If satisfactory, tighten the set screw of the guide roller on the supply side and the takeup side.

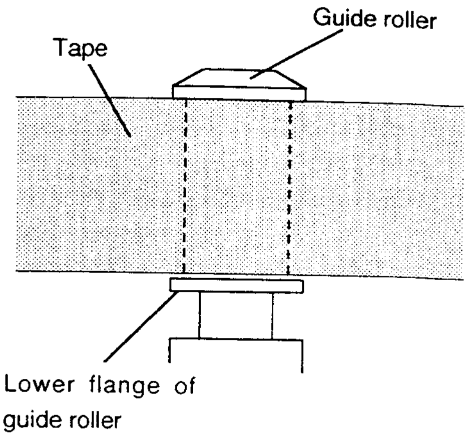


Fig. 3 - 2 - 6

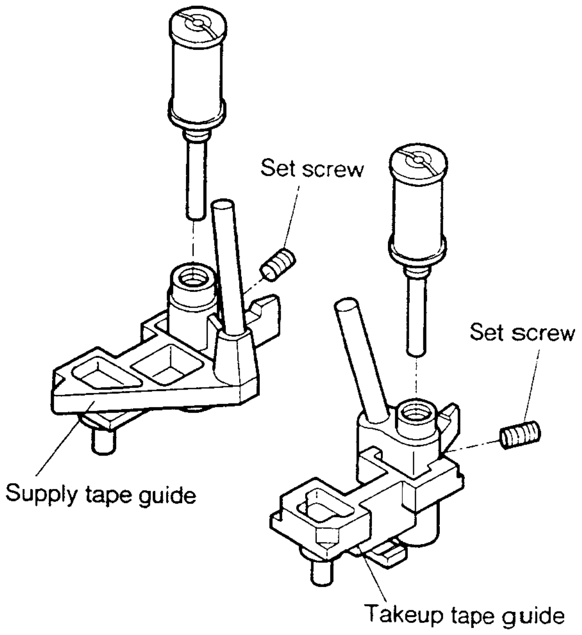


Fig. 3 - 2 - 7

Identification of Tape Guide Item Number
(Example; Parts No. 635B0590$\boxed{1}$0
Item No.

Item No. 1	No marking
Item No. 2	Marked with black magic marker
Item No. 3	Marked with red magic marker

*The marking point is on the top of the tape guides shown in figure above.

3-3 Adjustment of A/C Head

3-3-1 Adjustment of A/C Head Slant

① Playback a blank tape.
② Slowly turn the adjusting screw C counter-clockwise to crease the bottom of the tape slightly at the flange portion of the takeup tape guide.
③ Return adjusting screw C slowly to remove the crease.
④ Slowly turn adjusting screw C counter-clockwise again and stop turning just before the tape is creased.

3-3-2 Adjustment of A/C Head Azimuth and Height

① If the height of the CTL head is different from the specified-value in Fig. 3-3-2, adjust the height by the adjusting screw A.
② If adjusting screw A is moved, repeat the procedure in Item 3-3-1 to adjust the A/C head Slant.
③ Connect the oscilloscope to the audio output terminal and set the VCR to the playback mode.
④ Playback the standard tape. [PM6KH3 : 859C339O30]
⑤ Turn adjusting screw B to adjust azimuth so that the audio output level is maximum. Set the scope for an amplitude of 5 divisions.
⑥ After the adjustment of ⑤, pull out the screw driver and check if the audio output level is 4.6 divisions or more, when the maximum level (audio output) of ⑤ was set for 5 divisions.
⑦ If the audio output level is below the specified value, repeat the procedure ①~⑥.
⑧ Push the A/C head to the right and left(in the direction of A and A' in Fig. 3-3-1) and the release the A/C head. Check that the audio output level does not change. (Do not push past the point where the audio output level is reduced by 3/4 of its maximum value.)
⑨ Set the VCR to the playback mode and check if the change of the audio output level is less than 2dB.
⑩ If the change is over 2dB, adjust the A/C head slant again and recheck.
⑪ If not satisfactory, replace the takeup tape guide complying with the following procedure and repeat this adjustment.

- If the original tape guide has no marking, replace it with the one with a black mark.
- If the original tape guide has a black mark, replace it with one with a black mark.
- If the original tape guide has a red mark, replace it with the one with a red mark. If this replacement is not effective, replace it with one with a black mark.

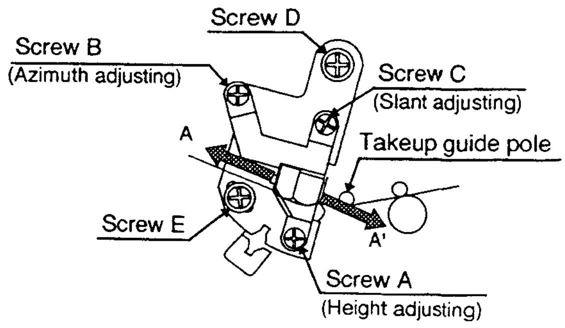


Fig. 3 - 3 - 1

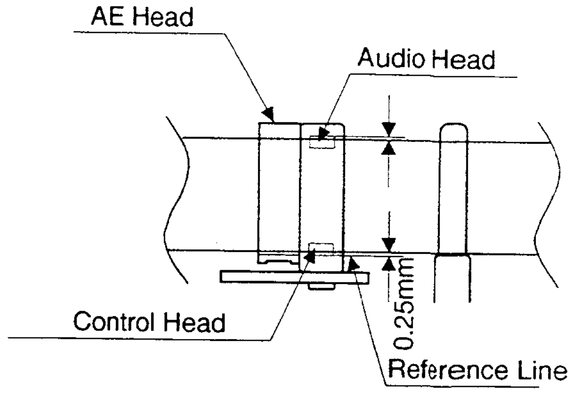


Fig. 3 - 3 - 2

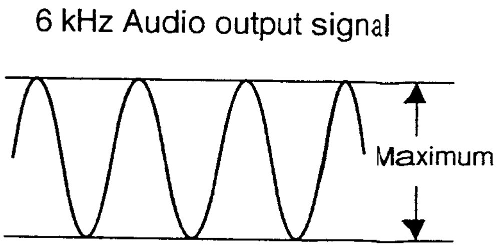


Fig. 3 - 3 - 3

Identification of Tape Guide Item Number
(Example; Parts No. 635B059010)
Item No.

Item No. 1	No marking
Item No. 2	Marked with black magic marker
Item No. 3	Marked with red magic marker

*The marking point is on the tops of the Takeup and Supply tape guides.
(Refer to Fig. 3-2-7)

3-4 Adjustment of Phase

① Set the VCR to the playback mode.
(Use the alignment tape specified below to perform adjustment ①~④.)
[PM3KE6 (CH1) 25 : 859C568O50]

② Preset tracking. (Refer to NOTE 1 in Para. 3.)

③ Loosen the screw E, insert a screw driver into the gap between the Base A/C and the main plate, and shift the Base A/C right and left to adjust the FM waveform to maximum.

④ Tighten the screw E.

⑤ Play back the alignment tape. (PMX:859C568O70)

⑥ Connect TP2A (the FM waveform output) and the audio output terminal to the oscilloscope, external Trig. to TP2H, and check if the missing portions of the FM waveform and that of the audio waveform are within the specified value (field).
(Refer to Fig. 3-4-2.)

⑦ If they are not within the specified value, repeat the procedure ③.

⑧ Turn the normal tracking control to adjust the FM waveform for maximum and set the oscilloscope so that the waveform is '5' divisions. (Refer to Note in Para. 3-2-5 about tracking adjustment.)

⑨ Preset tracking. (Refer to NOTE 1 in Para. 3.)

⑩ Check that the FM waveform on the oscilloscope is " 4.8 " or more divisions.

⑪ If the FM waveform is below " 4.8 " divisions, perform this adjustment after tracking preset.

⑫ Push the A/C head to the right and left (in the direction of A-A' in Fig. 3-4-1) and then release the A/C head. Check that the amplitude of the FM waveform does not change from that before shifting the A/C head.

⑬ If the amplitude changes, check if the A/C arm shaft is loose. If it is not loose, replace the A/C arm and repeat the procedure of this adjustment from the beginning, after the adjustment of A/C head in Item 3-3.

⑭ Alternately load and unload the tape several times to check that the amplitude of the FM waveform does not change.

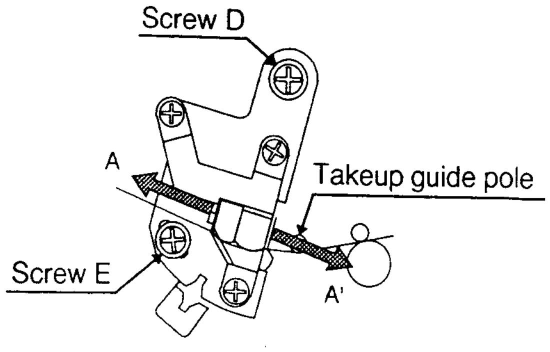


Fig. 3 - 4 - 1

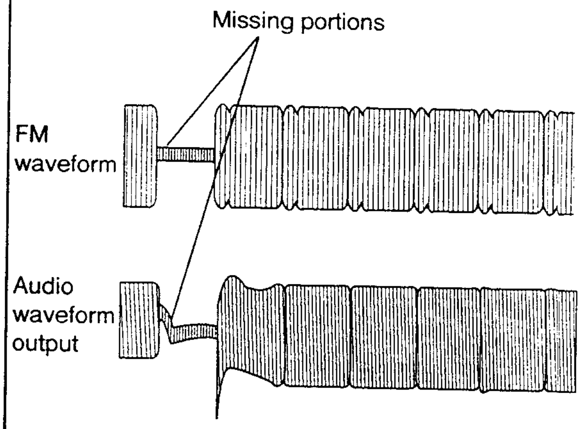


Fig. 3 - 4 - 2

3-5 Adjustment of Takeup Guide Arm Height

① Run a final portion of E-240 blank tape in the reverse search mode.

② Tighten the adjusting nut of takeup tape guide until the tape is creased at the lower flange of the takeup guide pole. Then slowly return the nut and stop at the point where the crease is removed. (During adjustment, use a uncovered cassette tape or raise the cover so that the adjustment can be performed.)

Note: During adjustment, turn the adjusting nut in the loosening direction. Do not turn the nut more than ±1/2 turn.

③ Eject the cassette tape, set the VCR to the reverse search mode again, and check that the tape is not creased at the upper or lower flange of the takeup tape guide.

④ Set the VCR to the playback mode and check that the tape is not creased at the upper or lower flange of the takeup guide pole.

⑤ Run the start portion of E-180 blank tape in the forward search mode and check that the tape is not creased at the takeup guide pole.

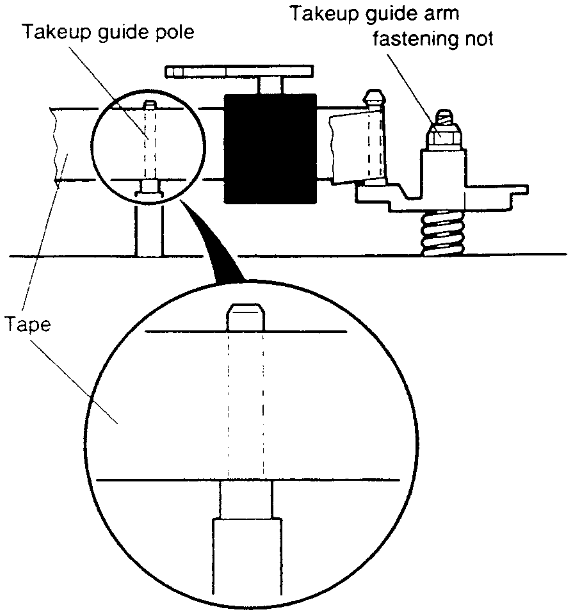


Fig. 3 - 5

4. Servicing for Tape Jamming during the Loading Mode

① Remove the upper cover.
② Remove the front unit.
③ Remove the bottom panel.
④ Reverse the deck and turn the pulley worm J in the direction shown by the arrow in Fig.4-1, observe whether the tape guides move to the unloading position. If they do not, follow the procedure (1).
If they do, follow the procedure (2).

(1) If the tape guides do not move (the pulley worm J does not turn);

① Unfasten the clamp holding the leads of the loading motor, which are attached to the side plate of the cassette housing. Unscrew screws (ⓐ and ⓑ) holding the cassette housing as shown in Fig. 4-2.
② Hold the cassette door with a screw driver to keep it open. (Take care not to allow the screw driver to touch other parts of the tape transport.)

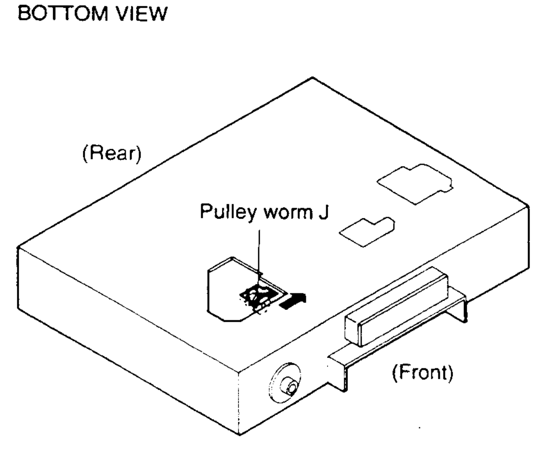


Fig. 4 - 1

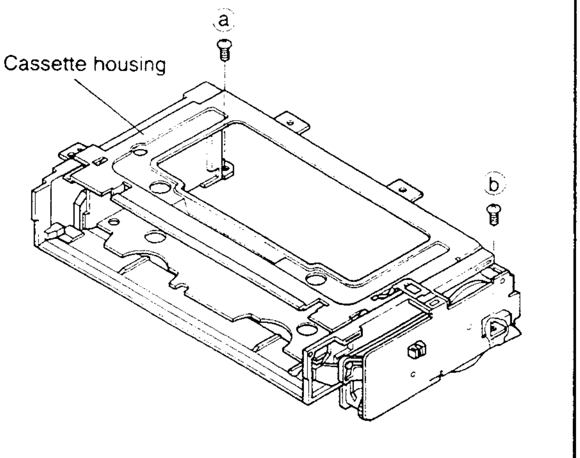


Fig. 4 - 2

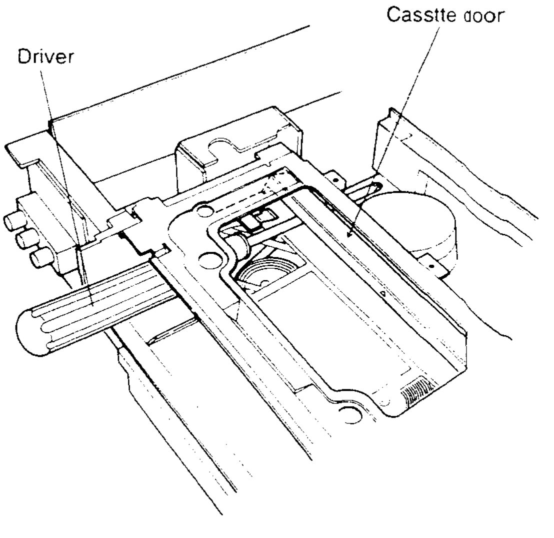


Fig. 4 - 3

③ Open the cassette door fully with your hand. Unfasten the catch to remove the pinch roller arm cap as shown in Fig. 4-4. (Refer to Para. 2-24 for the removal method.)

④ Push part A of the pinch roller arm assembly, shown in Fig. 4-5, in the direction shown by the arrow to make a space between the pinch roller arm assembly and the tape. Remove it together with the pinch cam taking care not to damage the tape.

⑤ Remove the screw driver (refer to Item ②), while holding the cassette door open with your hand. While pushing the tension arm in the direction shown by the arrow in Fig. 4-6 raise the cassette housing upward to remove it from the tape transport as shown in Fig. 4-7. Take care that the grease, which is applied to the main plate, does not adhere to the tape.

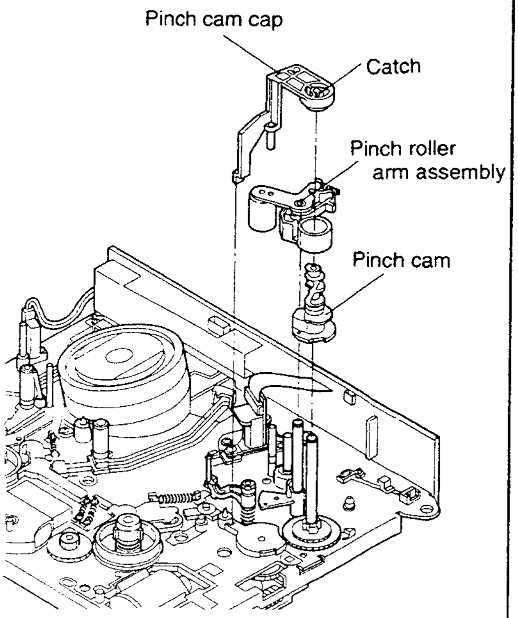

Pinch cam cap
Catch
Pinch roller arm assembly
Pinch cam

Fig. 4 - 4

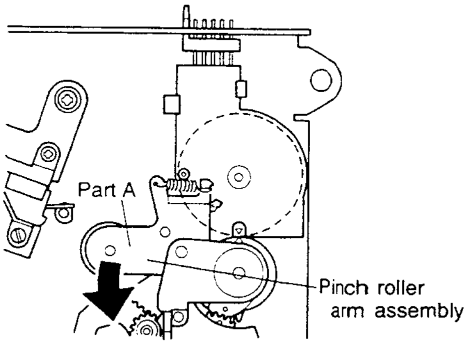

Part A
Pinch roller arm assembly

Fig. 4 - 5

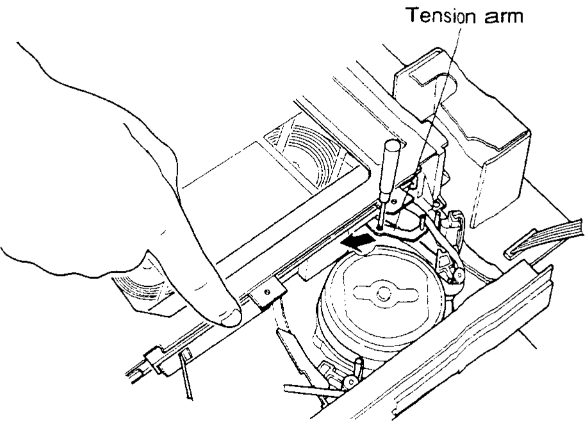

Tension arm

Fig. 4 - 6

⑥ Turn the cassette reel of the cassette tape to wind up the tape as shown in Fig. 4-8.

⑦ Turn the wheel gear shown in Fig. 4-9 in the direction shown by the arrow to eject the cassette tape.

⑧ Reverse the deck and turn the motor pulley J in the direction, shown by the arrow in Fig. 4-1, so that the matching mark M of the mode switch is in the position shown in Fig. 4-10 (the eject position). Make sure that the matching marks of the mode switch and the gear pinch, and those of the gear pinch and the joint gear, respectively, align as shown in Fig. 4-11. Turn the takeup guide arm clockwise to such a degree that takeup guide gear is not in the way of mounting the pinch roller cam to the shaft. Install the pinch roller cam so that its holes align with the triple catch of the gear pinch. (Refer to Para. 2-24 for the installation method.)

⑨ Install the pinch roller arm and the pinch roller arm cap.

⑩ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

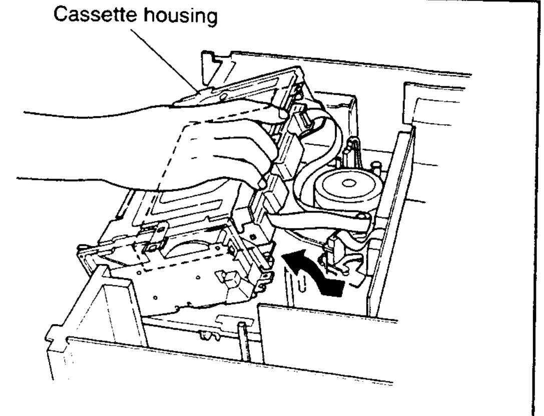


Fig. 4 - 7

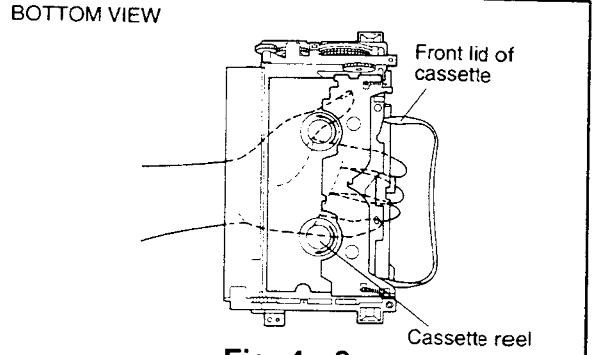


Fig. 4 - 8

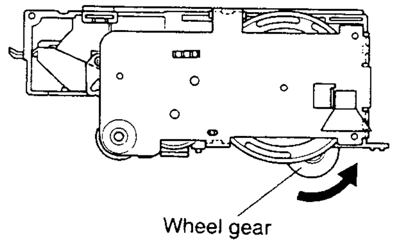


Fig. 4 - 9

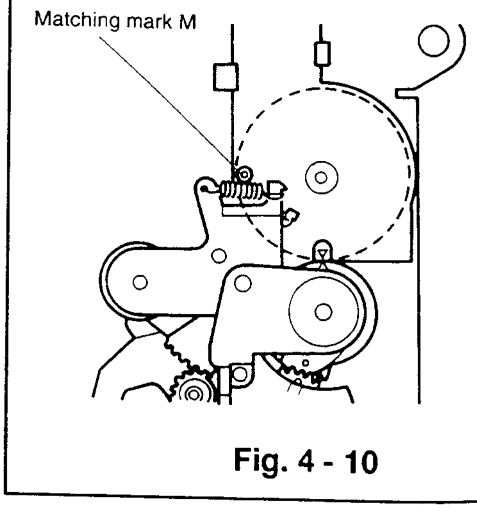


Fig. 4 - 10

(2) If the tape guides move (the pulley worm J turns);

① Reverse the deck and turn the pulley worm J in the direction shown by the arrow in Fig. 4-1 so that the takeup guide arm moves to the end of the unloading cycle.

② Turn the capstan shaft, shown in Fig. 4-12, clockwise to turn the reel so that the tape is wound back into the cassette. (Take care not to scar or stain the capstan shaft. After winding up the tape, clean the capstan shaft with alcohol, refer to Para. 1-2.)

③ Turn the pulley worm J as in Item ① so that the matching mark of the mode switch is in the position shown in Fig. 4-10 (the eject position). Eject the cassette tape.

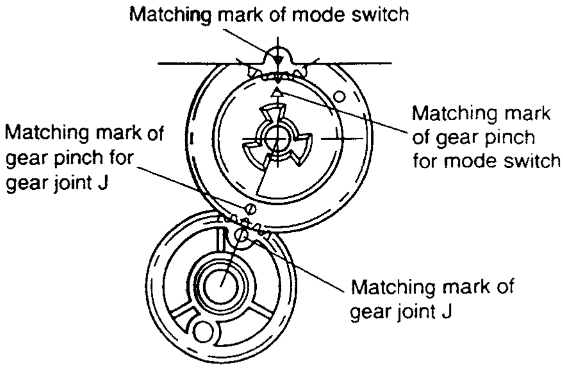

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 4 - 11

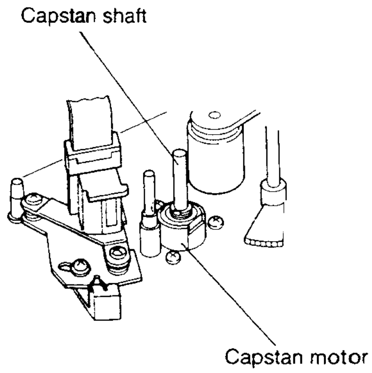

Capstan shaft
Capstan motor

Fig. 4 - 12

SPECIFICATION OF VPS RECORDING SYSTEM
[HS-M50V(G), HS-M60V(G) only]

1. VPS Signal

The VPS signal makes it possible during timer recording of television programs to switch on and off the unit at the correct time by using the preprogrammed recording time. The VPS signal is transmitted in the 16th line of the vertical blanking signal. Refer to Fig. 1. The VPS data signal is shown in Fig. 2. The television stations are responsible for changing of the VPS data. These are included in words 11 to 14.

The normal VPS code includes time data and program data. It is transmitted with the program and recognized by the unit as program identification. A program, which was scheduled for the time from 0:99 to 4:00 and the start of which was changed to the previous day, keeps its original label. If the program is extended, the label is valid until 4:00 of the following day, if the correct sending code is received. The maximum starting time for a delayed program is 4:00 of the following day.

2. Expected VPS time and type of VPS recording

2-1 At 20:00 on the day before the starting time the recorder is switched on and enters the expected VPS time. During the expected VPS time the unit is switched to the corresponding channel and waits for the VPS signal.

2-2 If a VPS signal, which confirms to the preprogrammed signal, is received, the unit switches into the recording mode.

2-3 If no VPS signal or status code is transmitted, the original recording time is used.

2-4 If an interruption code is transmitted during the VPS recording, the recording is stopped and the unit switches into the VPS stand-by mode. The recording is started, as soon as the regular VPS code is received again.

2-5 If the normal VPS code changes after the programmed timer recording into an unnormal code, the recording is finished.

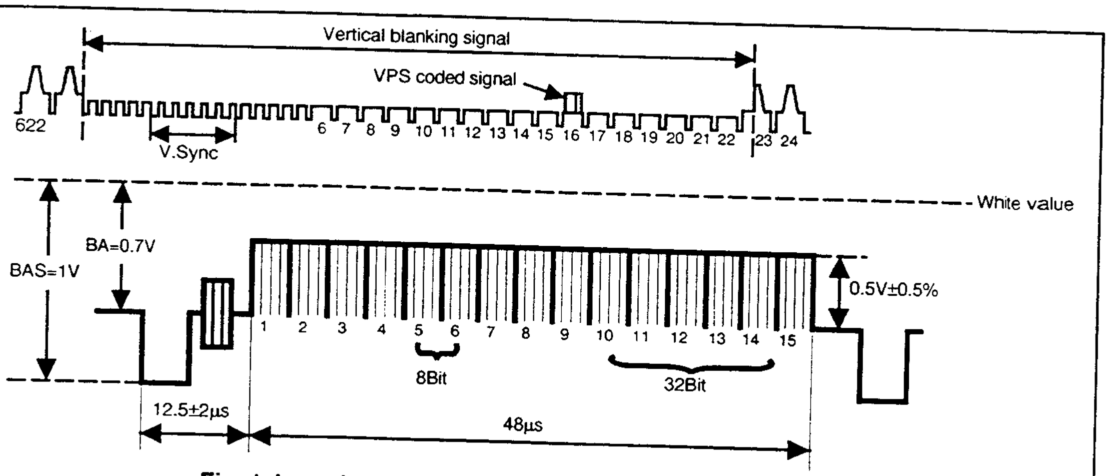
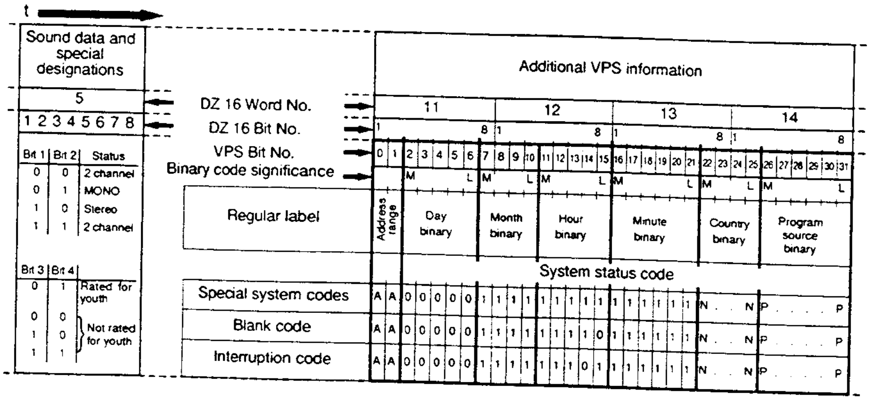

Vertical blanking signal
VPS coded signal
622
1
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
V.Sync
White value
BA=0.7V
BAS=1V
0.5V±0.5%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
8Bit
32Bit
12.5±2µs
48µs

Fig. 1 Inserting the data line into the FBAS signal


t
Sound data and special designations
5
1 2 3 4 5 6 7 8
Bit 1 | Bit 2 | Status
0 0 2 channel
0 1 MONO
1 0 Stereo
1 1 2 channel
Bit 3 | Bit 4
0 1 Rated for youth
0 0
1 0
1 1
Not rated for youth
DZ 16 Word No.
DZ 16 Bit No.
VPS Bit No.
Binary code significance
Additional VPS information
11
12
13
14
1 8 1 8 1 8 1 8
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
M L M L M L M L M L M L
Regular label
Address range
Day binary
Month binary
Hour binary
Minute binary
Country binary
Program source binary
System status code
Special system codes
A A 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 N . . N P . . . . P
Blank code
A A 0 0 0 0 0 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 N . . N P . . . . P
Interruption code
A A 0 0 0 0 0 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 N . . N P . . . . P

The 2-channel-status is coded 11 at the studio side; 00 has to be considered at the receiving side in special cases only.

M = MSB
L = LSB

A = Actual address range code
N = Actual country code
P = Actual program source code

Fig. 2 Data format of additional information in data line 16

GLOSSARY OF ABBREVIATIONS

A/C	Audio/Control
ACC	Automatic Color Control
A.E	Audio Erase
AFC	Automatic Frequency Control
AFT-D	Automatic Fine Tuning Door Switch
AGC	Automatic Gain Control
AL	After Load
AMP	Amplifier
ANT	Antenna
A-PB	Audio-Playback
A-REC	Audio-Recording
ALC	Automatic Level Control
B-FS	Brake Forward Search
B-RS	Brake Reverse Search
BPF	Band-Pass Filter
B/W	Black and White
BS	Band SW
CASS	Cassette
CP	Capstan
CP-FG	Capstan-Frequency Generator
CP-F/R	Capstan-Forward/Reverse
CP-M	Capstan-Motor
CONV	Converter
CTL	Control
C-LAMP	Cassette Lamp
C-I LAMP	Cassette Indicator Lamp
CE	Chip Enable
$\overline{\textbf{CE}}$	Not Chip Enable
CK	Clock
CL	Clear
CNT	Counter
CP R-R	Capstan Reverse Rotation
CS-1	Cassette Switch 1
CS-2	Cassette Switch 2
DAL	Delay-After Loading
DEMOD	Demodulator
DET	Detector
DL	Delay Line
DL-REV	During Reverse
DL-FWD	During Forward
DOC	Drop Out Compensator
DL-SL	During Slow
DL-$\overline{\textbf{SS}}$	During Not Speed Search
DOP	Drop Out Pulse
EF	Emitter Follower
EMPHA	Emphasis
EQ	Equalizer
EE	Electronic-Electronic
ES	End Sensor
FE-H	Full Erase Head
FF	Fast Forward
FG	Frequency Generator
FL-SW	Front Loading SW
FLM	Front Loading Motor
F/R-SW	FF/Rewind Switch
F/R	Forward/Reverse
FS	Forward Search
G	Ground
HE	Hall Element
H-LED	Humidity-LED
H-SENS	Humidity-Sensor
HPF	High-Pass Filter
LIM	Limiter
LPF	Low-Pass Filter
LM	Loading Motor
MDA	Motor Drive Amplifier
MC	Mechanical Control
MIC	Microphone
MOD	Modulator
$\overline{\textbf{N}}$	Not Normal
OPE	Operation
OSC	Oscillator
O-PWV	ON/OFF Command from Remote Decoder
PB	Play Back
PG	Pulse Generator
P/R-SW	P B/REC-SW
PCB	Printed Circuit Board
PIC	Picture Control
P/R	Play/Record
PSC	Pulse swallow control
PWT-SET	Power TV Set
PWV	ON/OFF Command to B+ Switching Circuit
REC	Recording
REF	Reference
RIS	Record Inhibit Switch
REW	Rewind
REG	Regulator
RS	Reverse Search
REC-2	Record Command for the Fine Editing Circuit
R-FS	Reel Drive Forward Search
R-P/R	Reel Drive Play/Record
S/AL	Stop After Load
SL	Slow
SLOK	Slow OK
S/P	Still/Pause
SS	Start Sensor
SRV-REC	Servo Record
$\overline{\textbf{SS}}$	Not Speed Search
S-STOP	Stop Command
STOK	Still OK
STW	Stop Watch
SENS	Sensor
STBY	Stand By
TM	Take up Motor
T-REC	Timer-Record
T.P	Test Point
TR	Transistor
TU-P	Tuner-Power
UL	Unload
VS	Voltage Synthesizer
V.SYNC	Vertical Sync
VCO	Voltage Controlled Oscillator
VXO	Variable Crystal Oscillator
W/D	White/Dark
X'OSC	Crystal Oscillator
Y/C	Luminance/Chrominance

CHIP PARTS REPLACEMENT

CHIP PARTS REPLACEMENT

Some resistors, shorting jumpers (0Ω resistor), ceramic capacitors, transistors and diodes are chip parts which are used for certain circuit elements. When replacing these parts, note the cautions as follows.

Cautions:

A. Use fine tipped, well insulated soldering pencil (iron), about 30 watts, and tweezers.
B. Melt the solder and remove the Chip Parts carefully not to tear off the copper foil of the printed circuit board.
C. Discard removed chips; do not reuse them.
D. Do not apply heat for more than 3 seconds to new chip Parts.
E. Avoid using a rubbing stroke when soldering.
F. Take care not to scratch, or damage the Chip Parts when soldering.
G. Supplementary cementing is not required.

1 Removal of Chip Parts (Resistors, capacitors, etc.)

A. Grasp the part with tweezers. Melt the solder at both sides alternately, remove one side of the part with a twisting motion.
B. Melt the solder at the other side and remove the part.

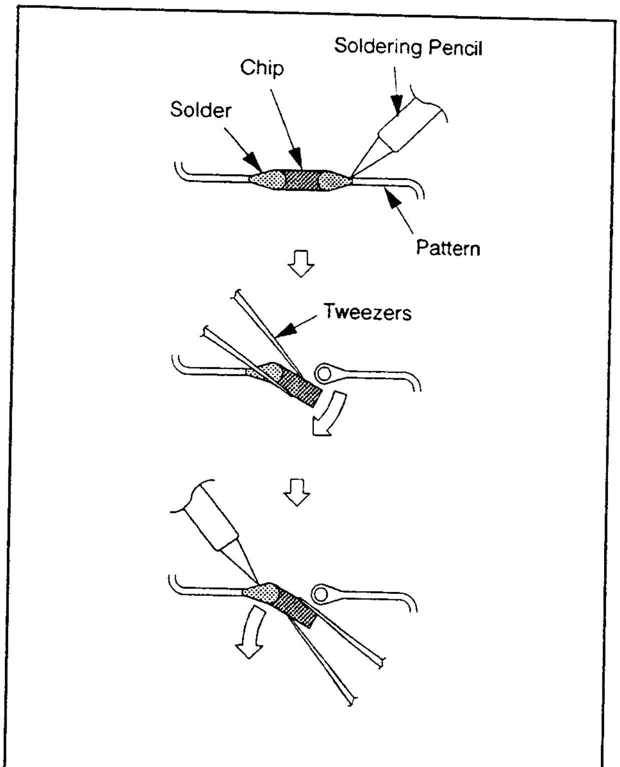

Soldering Pencil
Chip
Solder
Pattern
Tweezers

Fig. 1

2 Removal of Chip Parts (Transistors)

A. Melt the solder of one lead. Lift the side of that lead upward.
B. Simultaneously melt the solder of the two remaining leads and lift the part.

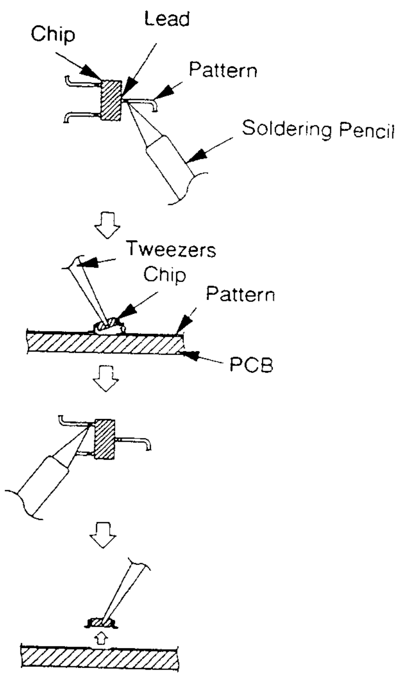

Lead
Chip
Pattern
Soldering Pencil
Tweezers
Chip
Pattern
PCB

Fig. 2

3 Replacement

A. Presolder the contact points of the circuit pattern.
B. Press the part downward with tweezers and apply the soldering pencil as shown in Fig. 3.

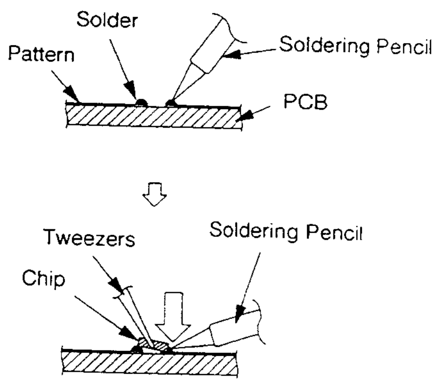
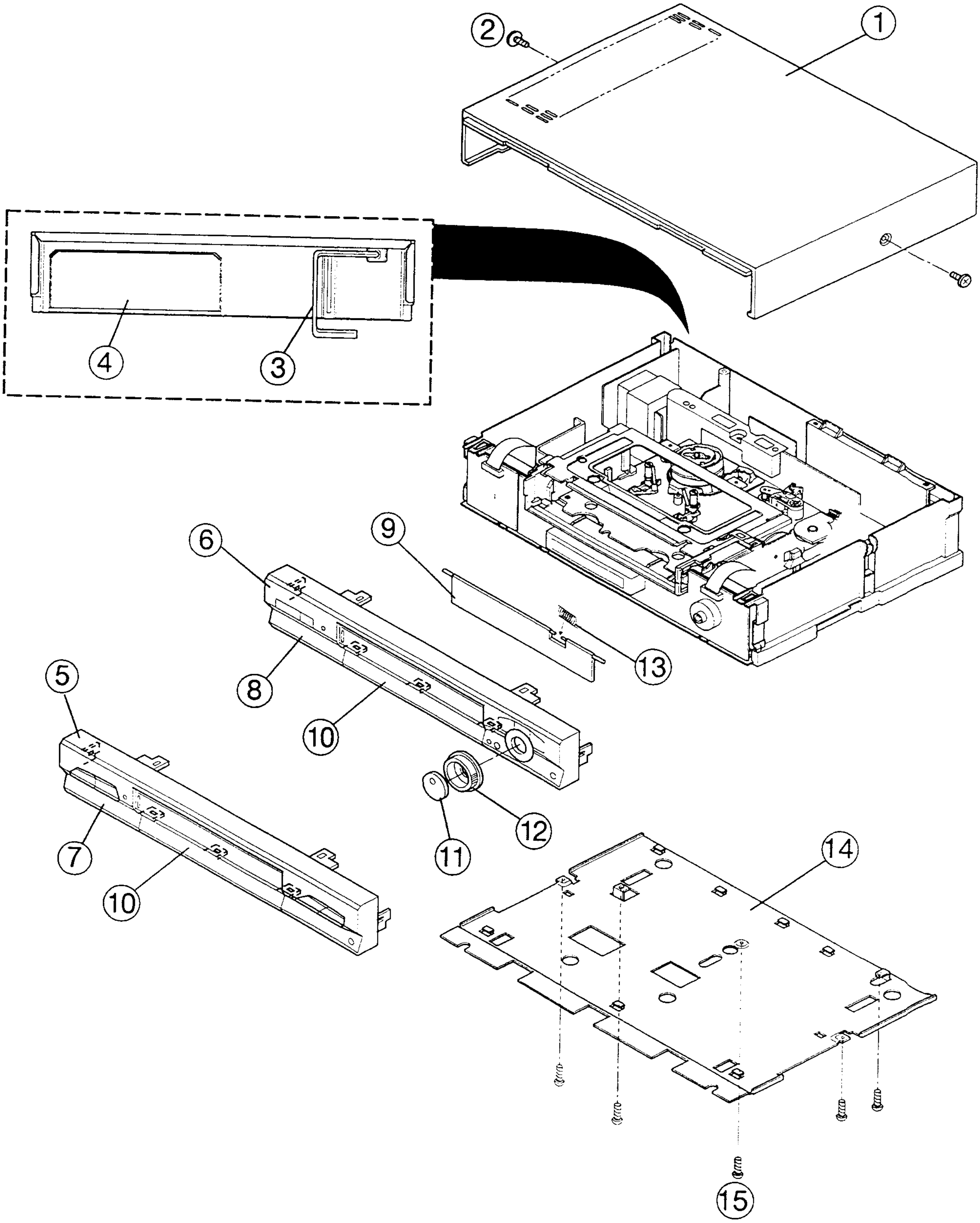

Solder
Pattern
Soldering Pencil
PCB
Tweezers
Soldering Pencil
Chip

Fig. 3

PARTS LIST

1. CABINET ASSEMBLY



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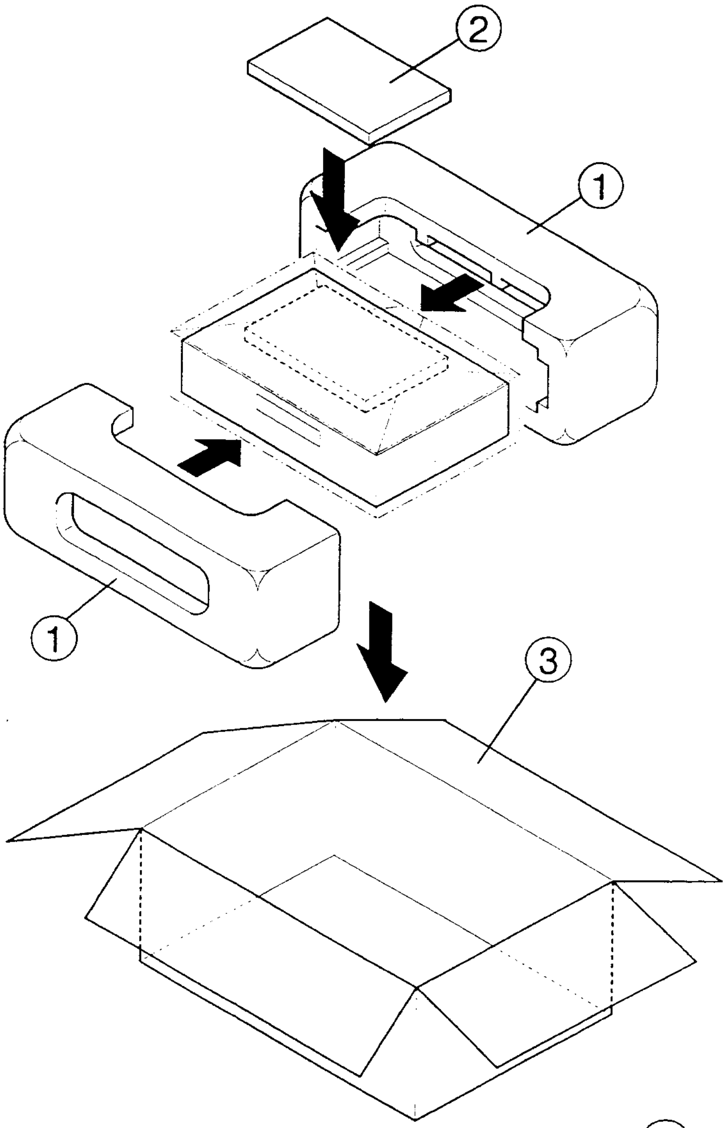
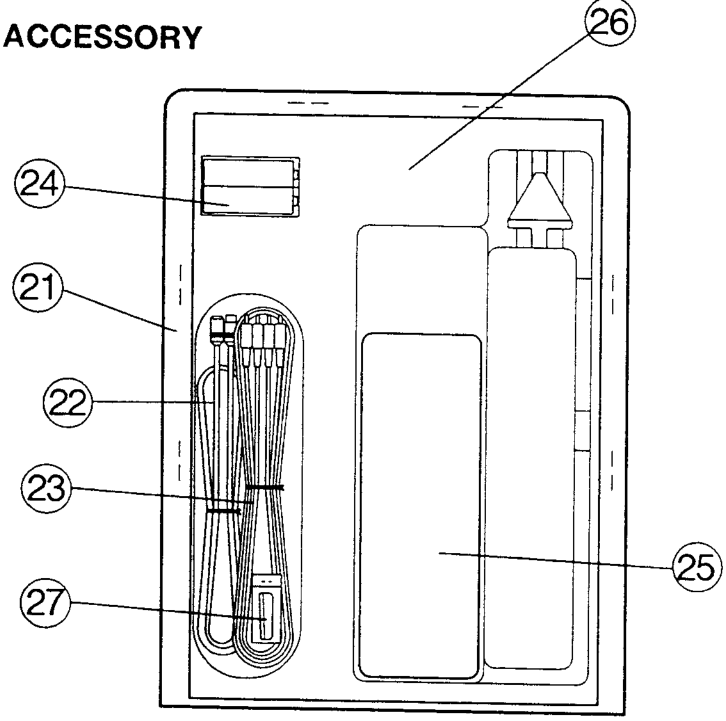
ITEM NO.	PARTS NO.	PARTS NAME	DESCRIPTION
CABINET ASSEMBLY			
1	968C040002	TOP COVER ASSY	
2	669D223080	SCREW	3X10
3	246C101010	AC POWER CORD	[M50VED/M60VED]
3	246C149040	AC POWER CORD	[M50VG/M60VG]
4	761B264020	COVER ANTENNA	[M50VED]
4	761B264040	COVER ANTENNA	[M50VG]
4	761B264050	COVER ANTENNA	[M60VED]
4	761B264060	COVER ANTENNA	[M60VG]
5	968B027014	FRONT PANEL ASSY	[M50VED]
5	968B027017	FRONT PANEL ASSY	[M50VG]
6	968B028002	FRONT PANEL ASSY	[M60VED]
6	968B028004	FRONT PANEL ASSY	[M60VG]
7	752C110030	DOOR PANEL ASSY	[M50VED]
7	752C111030	DOOR PANEL ASSY	[M50VG]
8	752C111040	DOOR PANEL ASSY	[M60VED]
8	752C111050	DOOR PANEL ASSY	[M60VG]
9	752C120020	CASSETTE DOOR ASSY	[M50VED]
9	752C121030	CASSETTE DOOR ASSY	[M50VG]
9	752C121040	CASSETTE DOOR ASSY	[M60VED]
9	752C121050	CASSETTE DOOR ASSY	[M60VG]
10	702B932010	PANEL TIMER	
11	704C946010	JOG DIAL	[M60VED/M60VG]
12	704C947010	SHUTTLE RING	[M60VED/M60VG]
13	572D385010	SPRING F/L	
14	590A407010	PANEL BOTTOM	
15	669D220030	SCREW	3X10 46LA005

2. Packing Parts



ACCESSORY



ITEM NO.	PARTS NO.	PARTS NAME	DESCRIPTION
PACKING PARTS			
1	803A351010	PACKING CUSHION	
2	----------	ACCESSORY	
3	802B463030	PACKING CASE	[M50VED]
3	802B463050	PACKING CASE	[M50VG]
3	802B464030	PACKING CASE	[M60VED]
3	802B464040	PACKING CASE	[M60VG]
ACCESSORY			
21	829B013070	ACCESSORY PACK	[M50VG/M60VG]
21	829B013040	ACCESSORY PACK	[M50VED/M60VED]
22	242D231030	CABLE	1.5m [M50VED/M60VED]
22	243C120010	CABLE	1.5m [M50VG/M60VG]
23	242C938010	CABLE PHONO	2P R&W 1.5m
24	----------	BATTERY	
25	939P578020	REMOTE HAND UNIT	[M50VED/M60VED]
25	939P578040	REMOTE HAND UNIT	[M50VG/M60VG]
26	872C115000	INSTRUCTION BOOK	[M50VED]
26	872C115030	INSTRUCTION BOOK	[M50VG]
26	872C115070	INSTRUCTION BOOK	[M60VED]
26	872C116000	INSTRUCTION BOOK	[M60VG]
27	761C536010	COVER JACK	[M50VED/M60VG]

3. ELECTRICAL PARTS

INTEGRATED CIRCUITS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
IC101	270P184010	IC	M52318SP
IC102	266P192010	IC	LA7910
IC103	272P654010	IC	M51497L
IC201	270P183010	IC	BA7184S
IC2A0	270P195010	IC	LA7346
IC2A1	272P702010	IC	LC8992
IC2601	270P167020	IC	LA7156-S [50VG, 60VG]
IC2602	270P067010	IC	BA7645N
IC2603	270P046010	IC	BA7644AN
IC2604	270P046010	IC	BA7644AN
IC2605	270P201010	IC	LA7151 [50VG, 60VG]
IC2606	270P201010	IC	LA7151 [50VG, 60VG]
IC301	270P601010	IC	BA7746FS
IC3A0	272P234010	IC	LA7295
IC3000	270P180010	IC	AN3967FBP
IC3001	266P419010	IC	M5223P
IC3002	272P583010	IC	NJM2233BM[60VED, 60VG]
IC4A0	274P602010	IC	MN67492MSB5
IC4A1	272P237010	IC	LA6324N
IC501	274P573010	IC	M35013-050SP
IC5A0	274P601080	IC	M38185ME-074FP
IC5A1	263P593010	IC	CAT35C104P
IC5A2	272P235010	IC	TA7291S
IC5A3	272P204010	IC	LM2904M
IC5A4	266P010020	IC	μPC574J-K
IC5A5	270P070010	IC	AT93C56-10PC
IC700	272P655010	IC	TA7337P
IC701	270P001010	IC	TDA9840
IC7A0	272P965010	IC	CF70091A[50VED, 60VED]
IC7A1	270P602010	IC	TDA1305T[50VED, 60VED]
IC801	270P185010	IC	SAA5233T
IC8D0	274P561010	IC	μPD16311GC-AB6
IC9A0	272P237010	IC	LA6324N

TRANSISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 101	260P874010	CHIP TRANSISTOR	2SC3082K-P, Q
Q 102	260P560040	TRANSISTOR	2SA933S-S
Q 103	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 105	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 106	260P807010	CHIP TRANSISTOR	UN2212
Q 109	260P805030	CHIP TRANSISTOR	2SC3053-D [50VG, 60VG]
Q 110	260P874010	CHIP TRANSISTOR	2SC3082K-P, Q [50VED, 60VED]
Q 111	260P560040	TRANSISTOR	2SA933S-S [50VG, 60VG]
Q 201	260P807010	CHIP TRANSISTOR	UN2212
Q 202	260P807010	CHIP TRANSISTOR	UN2212
Q 205	260P807010	CHIP TRANSISTOR	UN2212
Q 206	260P807010	CHIP TRANSISTOR	UN2212
Q 207	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 208	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 260	260P807010	CHIP TRANSISTOR	UN2212
Q 261	260P807010	CHIP TRANSISTOR	UN2212
Q 262	260P807010	CHIP TRANSISTOR	UN2212
Q 2A0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2A1	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 2A2	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 2A3	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2A4	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2A5	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2A6	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2A7	260P807010	CHIP TRANSISTOR	UN2212
Q 2A8	260P806010	CHIP TRANSISTOR	DTA124EK
Q 2A9	260P807010	CHIP TRANSISTOR	UN2212
Q 2B0	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2B1	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B2	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B3	260P806010	CHIP TRANSISTOR	DTA124EK
Q 2B4	260P806010	CHIP TRANSISTOR	DTA124EK
Q 2B5	260P807010	CHIP TRANSISTOR	UN2212
Q 2B6	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B7	260P807010	CHIP TRANSISTOR	UN2212
Q 2B8	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B9	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2C0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2C2	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2C5	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2C7	260P562040	TRANSISTOR	2SA952-K
Q 2C8	260P560040	TRANSISTOR	2SA933S-S
Q 2D0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2D4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2D6	260P807010	CHIP TRANSISTOR	UN2212
Q 2E0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2E1	260P804020	CHIP TRANSISTOR	2SC3052-F [50VED, 60VED]
Q 2E2	260P804020	CHIP TRANSISTOR	2SC3052-F [50VED, 60VED]
Q 2S6	260P806010	CHIP TRANSISTOR	DTA124EK
Q 2601	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2602	260P807010	CHIP TRANSISTOR	UN2212 [50VG, 60VG]
Q 2603	260P807010	CHIP TRANSISTOR	UN2212 [50VG, 60VG]
Q 2604	260P804020	CHIP TRANSISTOR	2SC3052-F [50VG, 60VG]
Q 3A0	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 3A1	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 3A2	260P629060	TRANSISTOR	2SC3331-S
Q 3A3	260P804020	CHIP TRANSISTOR	2SC3052-F[60VED, 60VG]
Q 3100	260C676040	TRANSISTOR	2SC3311A-R, S
Q 3101	260C676040	TRANSISTOR	2SC3311A-R, S
Q 3102	260P806010	CHIP TRANSISTOR	DTA124EK
Q 3103	260C676040	TRANSISTOR	2SC3311A-R, S [60VG]
Q 3104	260C676040	TRANSISTOR	2SC3311A-R, S [60VG]
Q 3105	260P806010	CHIP TRANSISTOR	DTA124EK [60VG]
Q 3252	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 3400	260P807010	CHIP TRANSISTOR	UN2212 [60VED, 60VG]
Q 3502	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 3503	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 3504	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 3510	260C676040	TRANSISTOR	2SC3311A-R, S
Q 4A1	260P802020	CHIP TRANSISTOR	2SA1235-F

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 4A2	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 4A3	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 4A4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 4A5	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 4A6	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 501	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 502	260P807010	CHIP TRANSISTOR	UN2212
Q 503	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 504	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 505	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 506	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 507	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5A1	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A2	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A3	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5A4	260P807010	CHIP TRANSISTOR	UN2212 [60VED, 60VG]
Q 5A5	260P562040	TRANSISTOR	2SA952-K [60VED, 60VG]
Q 5A6	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A7	260P807010	CHIP TRANSISTOR	UN2212
Q 5A8	260P807010	CHIP TRANSISTOR	UN2212
Q 5A9	260P807010	CHIP TRANSISTOR	UN2212
Q 5B0	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5B1	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5B2	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5B4	260P807010	CHIP TRANSISTOR	UN2212
Q 5B6	260P807010	CHIP TRANSISTOR	UN2212
Q 5B7	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5B8	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5B9	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5E1	268P014030	PHOTO TRANSISTOR	PN205L-(NC).M12
Q 5E2	268P014030	PHOTO TRANSISTOR	PN205L-(NC).M12
Q 5E3	268P059010	PHOTO INTERRUPTER	RPI-244
Q 5E4	268P059010	PHOTO INTERRUPTER	RPI-244
Q 701	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 702	260P806010	CHIP TRANSISTOR	DTA124EK
Q 703	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 7A0	260P805030	CHIP TRANSISTOR	2SC3053-D [50VED, 60VED]
Q 7A2	260P356010	TRANSISTOR	2SC1906 [50VED, 60VED]
Q 7A3	260P356010	TRANSISTOR	2SC1906 [50VED, 60VED]
Q 7A4	260P802020	CHIP TRANSISTOR	2SA1235-F [50VED, 60VED]
Q 7A5	260P807010	CHIP TRANSISTOR	UN2212 [50VED, 60VED]
Q 8X1	260C676040	TRANSISTOR	2SC3311A-R, S [60VED, 60VG]
Q 901	260C628010	TRANSISTOR	2SA1619A-Q
Q 902	260P630010	TRANSISTOR	2SD2012
Q 903	260P630010	TRANSISTOR	2SD2012
Q 904	260P640030	TRANSISTOR	2SD1762-F
Q 907	260P560030	TRANSISTOR	2SA933S-R, F
Q 908	260P560040	TRANSISTOR	2SA933S-S
Q 910	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 911	260P438010	TRANSISTOR	2SD1273-Q
Q 913	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 9A1	260P438020	TRANSISTOR	2SD1273-P
Q 9A5	260P613010	TRANSISTOR	2SC4208A

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 9B2	260P613010	TRANSISTOR	2SC4208A [50VG, 60VG]

DIODES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 101	264P568010	DIODE	1SS252
D 102	264P568010	DIODE	1SS252
D 2A0	264P568010	DIODE	1SS252
D 2A1	264P568010	DIODE	1SS252
D 2A2	264P568010	DIODE	1SS252
D 2A3	264P568010	DIODE	1SS252
D 2A4	264P568010	DIODE	1SS252
D 2A5	264P568010	DIODE	1SS252
D 2A8	264P568010	DIODE	1SS252
D 2C0	264P568010	DIODE	1SS252 [50VED, 50VG, 60VG]
D 2C1	264P568010	DIODE	1SS252 [50VED, 50VG, 60VG]
D 2601	264P568010	DIODE	1SS252 [50VG, 60VG]
D 2602	264P808010	CHIP DIODE	DAN202K [50VG, 60VG]
D 2605	264P807010	DIODE	DA202K HVN21C [50VG, 60VG]
D 2606	264P807010	DIODE	DA202K HVN21C [50VG, 60VG]
D 2609	264P568010	DIODE	1SS252
D 2621	264P568010	DIODE	1SS252 [50VED, 60VED, 60VG]
D 2621	264P807010	DIODE	DA202K HVN21C [50VG]
D 2622	264P568010	DIODE	1SS252 [50VED, 60VED, 60VG]
D 2622	264P808010	CHIP DIODE	DAN202K [50VG]
D 2623	264P568010	DIODE	1SS252 [50VED, 60VED, 60VG]
D 2623	264P826010	CHIP DIODE	DA204K [50VG]
D 2624	264P568010	DIODE	1SS252 [50VED, 60VED, 60VG]
D 2624	264P826010	CHIP DIODE	DA204K [50VG]
D 2625	264P568010	DIODE	1SS252 [50VED, 60VED, 60VG]
D 2625	264P826010	CHIP DIODE	DA204K [50VG]
D 2626	264P568010	DIODE	1SS252 [50VED, 60VED, 60VG]
D 2631	264P568010	DIODE	1SS252 [60VG]
D 2632	264P568010	DIODE	1SS252 [60VG]
D 2633	264P568010	DIODE	1SS252 [60VG]
D 2634	264P568010	DIODE	1SS252 [60VG]
D 3A0	264P568010	DIODE	1SS252
D 3A2	264P568010	DIODE	1SS252 [60VED, 60VG]
D 3A5	264P568010	DIODE	1SS252
D 3400	264P568010	DIODE	1SS252
D 3401	264P568010	DIODE	1SS252
D 3402	264P568010	DIODE	1SS252
D 3403	264P568010	DIODE	1SS252
D 3404	264P826010	CHIP DIODE	DA204K
D 3405	264P568010	DIODE	1SS252
D 4A0	264P568010	DIODE	1SS252
D 4A1	264P568010	DIODE	1SS252
D 501	264P568010	DIODE	1SS252
D 502	264P568010	DIODE	1SS252

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 5A1	264P342070	DIODE	HZ4C2
D 5A3	264P568010	DIODE	1SS252
D 5A4	264P568010	DIODE	1SS252 [60VED, 60VG]
D 5A5	264P568010	DIODE	1SS252
D 5A7	264P568010	DIODE	1SS252
D 5A8	264P568010	DIODE	1SS252
D 5A9	264P568010	DIODE	1SS252 [60VED, 60VG]
D 5B1	264P585010	LIGHT EMITTING DIODE	LN59L. MI
D 5B2	264P568010	DIODE	1SS252
D 5B3	264P807010	DIODE	DA202K HVN21C
D 5B4	264P568010	DIODE	1SS252
D 7A0	264P342070	DIODE	HZ4C2 [50VED, 60VED]
D 7A1	264P568010	DIODE	1SS252 [50VED, 60VED]
D 8A1	264P568010	DIODE	1SS252
D 8A2	264P568010	DIODE	1SS252
D 8A3	264P568010	DIODE	1SS252
D 8B0	264P568010	DIODE	1SS252
D 8B1	264P568010	DIODE	1SS252
D 8B2	264P568010	DIODE	1SS252
D 8B3	264P568010	DIODE	1SS252
D 8E1	264P568010	DIODE	1SS252 [60VED, 60VG]
D 8E2	264P568010	DIODE	1SS252 [60VED, 60VG]
D 8E3	264P568010	DIODE	1SS252 [60VED, 60VG]
D 8E4	264P568010	DIODE	1SS252 [60VED, 60VG]
D 8F0	264P621010	LIGHT EMITTING DIODE	SEL2210R TP2
D 8J3	264P568010	DIODE	1SS252 [60VED, 60VG]
D 8K0	264P568010	DIODE	1SS252
D 8L1	264P568010	DIODE	1SS252 [50VG, 60VG]
D 8L2	264P568010	DIODE	1SS252 [50VED, 60VED]
D 8M1	264P568010	DIODE	1SS252 [50VED, 60VED]
D 8M2	264P568010	DIODE	1SS252
D 8M3	264P568010	DIODE	1SS252 [50VG, 60VG]
D 8N0	264P568010	DIODE	1SS252 [50VED, 50VG]
D 8S1	264P568010	DIODE	1SS252 [60VED, 60VG]
D 8Z1	264P484080	DIODE	RD6. 2FB3
D 901	264P101050	DIODE	RM 1B
D 902	264P569010	DIODE	G4DL-6140 FORMING
D 903	264P569010	DIODE	G4DL-6140 FORMING
D 904	264P101050	DIODE	RM 1B
D 905	264P101050	DIODE	RM 1B
D 906	264P569010	DIODE	G4DL-6140 FORMING
D 907	264P569010	DIODE	G4DL-6140 FORMING
D 908	264P101050	DIODE	RM 1B
D 909	264P500020	DIODE	EM01Z
D 910	264P500020	DIODE	EM01Z
D 911	264P104040	DIODE	HZ30-2
D 920	264P568010	DIODE	1SS252
D 921	264P568010	DIODE	1SS252
D 922	264P568010	DIODE	1SS252
D 9A1	264P488040	DIODE	RD13FB3
D 9B2	264P484020	DIODE	RD5. 6FB1
D 9B3	264P452030	DIODE	HZ5C3
D 9C2	264P568010	DIODE	1SS252
D 9C5	264P487080	DIODE	RD12FB2 [50VG, 60VG]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
FILTERS			
CF101	296P014090	CERAMIC FILTER	SFE-5. 5MC2
CF102	296P104010	CERAMIC TRAP	EFC-S3F01W3A
CF103	299P051050	CERAMIC RESONATOR	CSB500F9
CF104	296P143010	CERAMIC RESONATOR	CDSH5. 5ME65
CF301	296P071020	CERAMIC FILTER	
CF7A0	296P131010	CERAMIC FILTER	-S5R5MW5 [50VED, 60VED]
SF101	296P141010	SAW FILTER	SAF38. 9MVB85Z
SF102	296P134010	SAW FILTER	SAF33. 0MC70Z
DELAY LINES			
DL2A0	337P081010	DELAY LINE	CF873
COILS			
L 01	325C121030	PEAKING COIL	10 μH-K
L 101	325C122050	PEAKING COIL	100 μH-K
L 102	325C165020	PEAKING COIL	1. 2 μH-J
L 103	325C170050	PEAKING COIL	2. 2 μH-K SHIELD
L 104	325C165040	PEAKING COIL	1. 8 μH-J
L 105	325C166040	PEAKING COIL	12 μH-J
L 106	323P191010	VIF COIL	292GJS-7145BS
L 108	323P191020	VIF COIL	292GNS-7135BS
L 109	325C166000	PEAKING COIL	5. 6 μH-J
L 111	325C166080	PEAKING COIL	27 μH-J [50VED, 60VED]
L 111	325C166070	PEAKING COIL	22 μH-J [50VG, 60VG]
L 112	325C165020	PEAKING COIL	1. 2 μH-J [50VED, 60VED]
L 113	325C122050	PEAKING COIL	100 μH-K [50VED, 60VED]
L 201	321C112050	RF COIL	100 μH-K
L 202	325C166070	PEAKING COIL	22 μH-J
L 203	325C167040	PEAKING COIL	82 μH-J
L 204	325C167070	PEAKING COIL	150 μH-J
L 2A0	325C166060	PEAKING COIL	18 μH-J
L 2A1	325C166090	PEAKING COIL	33 μH-J
L 2A3	325C167080	PEAKING COIL	180 μH-J
L 2A4	325C166060	PEAKING COIL	18 μH-J
L 2A5	325C168010	PEAKING COIL	330 μH-J
L 2A6	325C167010	PEAKING COIL	47 μH-J
L 2A7	325C166090	PEAKING COIL	33 μH-J
L 2A8	325C166090	PEAKING COIL	33 μH-J
L 2A9	325C165070	PEAKING COIL	3. 3 μH-J
L 2B0	325C122050	PEAKING COIL	100 μH-K
L 2B1	325C167010	PEAKING COIL	47 μH-J
L 2B2	325C166090	PEAKING COIL	33 μH-J
L 2B3	325C167000	PEAKING COIL	39 μH-J
L 2B6	325C166020	PEAKING COIL	8. 2 μH-J
L 2B7	321C112050	RF COIL	100 μH-K
L 2B8	321C112050	RF COIL	100 μH-K
L 2B9	325C162050	PEAKING COIL	100 μH-K
L 2301	325C243010	CHIP COIL	330 μH-K [50VG, 60VG]
L 2302	325C243010	CHIP COIL	330 μH-K [50VG, 60VG]
L 2303	325C243010	CHIP COIL	330 μH-K [50VG, 60VG]
L 2304	325C243010	CHIP COIL	330 μH-K [50VG, 60VG]
L 2601	325C122050	PEAKING COIL	100 μH-K [50VG, 60VG]
L 2602	325C162050	PEAKING COIL	100 μH-K

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
L 2603	325C112050	PEAKING COIL	100μH-K
L 301	325C102050	PEAKING COIL	100μH-K
L 3A0	321C011050	RF COIL	8200μH-J
L 3A1	321C010040	RF COIL	1000μH-J
L 3A2	325C162080	PEAKING COIL	180μH-K [60VED, 60VG]
L 501	325C262050	PEAKING COIL	100μH-K
L 502	325C166050	PEAKING COIL	15μH-J
L 503	325C262050	PEAKING COIL	100μH-K
L 504	325C266080	PEAKING COIL	27μH-J
L 701	325C161030	PEAKING COIL	10μH-K
L 702	325C161030	PEAKING COIL	10μH-K
L 703	325C161030	PEAKING COIL	10μH-K
L 708	321C016020	RF COIL	4700μH-J
L 7A0	325C107010	PEAKING COIL	47μH-J [50VED, 60VED]
L 7A2	325C106070	PEAKING COIL	22μH-J [50VED, 60VED]
L 7A3	325C107050	PEAKING COIL	100μH-J[50VED, 60VED]
L 7A4	325C167050	PEAKING COIL	100μH-J[50VED, 60VED]
L 7A6	325C161030	PEAKING COIL	10μH-K [50VED, 60VED]
L 7A7	325C161030	PEAKING COIL	10μH-K [50VED, 60VED]
L 801	325C110090	PEAKING COIL	4.7μH-K
L 802	325C162050	PEAKING COIL	100μH-K
L 8A0	325C122050	PEAKING COIL	100μH-K
L 8H0	325C121030	PEAKING COIL	10μH-K [60VG]
L 8H1	325C153030	PEAKING COIL	470μH-K [60VG]
L 8H2	325C153030	PEAKING COIL	470μH-K [60VG]
L 8X1	325C122050	PEAKING COIL	100μH-K [60VED, 60VG]
L 901	351P038010	LINE FILTER	ELF-18D290CN [50VG, 60VG]
LC301	327P081010	SIF COIL	5.5MHz/6.0MHz

TRANSFORMERS

T 3A0	409P423030	AUDIO BIAS OSC	409P42301/2
T 901	350P628010	TRANS POWER	[50VED, 60VED]
T 901	350P628030	TRANS POWER	PRI 220V [50VG, 60VG]

VARIABLE RESISTORS

VR101	127C381010	VR SEMIFIXED	1/5W B50kΩ-M
VR2A0	127C380090	VR SEMIFIXED	1/5W B20kΩ-M
VR2A1	127C390090	VR SEMIFIXED	1/5W B20kΩ-M
VR2A2	127C380080	VR SEMIFIXED	1/5W B10kΩ-M
VR2A3	127C380050	VR SEMIFIXED	1/5W B2kΩ-M
VR2A4	127C380050	VR SEMIFIXED	1/5W B2kΩ-M
VR2A5	127C380090	VR SEMIFIXED	1/5W B20kΩ-M
VR310	127C181020	VR SEMIFIXED	1/5W B100kΩ-M
VR3002	127C390090	VR SEMIFIXED	1/5W B20kΩ-M
VR3003	127C390080	VR SEMIFIXED	1/5W B10kΩ-M
VR3004	127C390090	VR SEMIFIXED	1/5W B20kΩ-M
VR3010	127C381020	VR SEMIFIXED	1/5W B100kΩ-M [60VG]
VR3011	127C381020	VR SEMIFIXED	1/5W B100kΩ-M [60VG]
VR5A0	127C381020	VR SEMIFIXED	1/5W B100kΩ-M
VR756	127C380080	VR SEMIFIXED	1/5W B10kΩ-M
VR8A0	129D157060	VR PCB	1/20W B50kΩ-17TM CS [60VG]
VR8B0	129D157050	VR PCB	1/20W B3kΩ-17TM CS [60VED]
VR8B0	129D157060	VR PCB	1/20W B50kΩ-17TM CS [60VG]

RESISTORS

R 01	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 03	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 04	103P401020	CHIP RESISTOR	1/10W 82Ω-J [50VG, 60VG]
R 06	103P409050	CHIP RESISTOR	1/10W 0Ω
R 08	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 11	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 12	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 13	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 16	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 101	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 102	103P402080	CHIP RESISTOR	1/10W 1.8kΩ-J [50VED, 60VED]
R 102	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [50VG, 60VG]
R 103	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 104	103P401070	CHIP RESISTOR	1/10W 220Ω-J [50VED, 60VED]
R 104	103P401010	CHIP RESISTOR	1/10W 68Ω-J [50VG, 60VG]
R 105	103P401020	CHIP RESISTOR	1/10W 82Ω-J [50VED, 60VED]
R 108	103P477010	CHIP RESISTOR	1/10W 82kΩ-F
R 110	103P476060	CHIP METAL	1/10W 51kΩ-F
R 113	103P471090	CHIP RESISTOR	1/10W 560Ω-F
R 115	103P471090	CHIP RESISTOR	1/10W 560Ω-F
R 116	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
R 118	103P470030	CHIP RESISTOR	1/10W 120Ω-F [50VED, 60VED]
R 118	103P470010	CHIP RESISTOR	1/10W 100Ω-F [50VG, 60VG]
R 119	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 120	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 126	103P402080	CHIP RESISTOR	1/10W 1.8kΩ-J
R 128	103P409050	CHIP RESISTOR	1/10W 0Ω
R 130	103P405090	CHIP RESISTOR	1/10W 680kΩ-J
R 131	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 132	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 133	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 134	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 135	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 136	103P405020	CHIP RESISTOR	1/10W 180kΩ-J
R 139	103P404050	CHIP RESISTOR	1/10W 47kΩ-J [50VG, 60VG]
R 140	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [50VG, 60VG]
R 141	103P402010	CHIP RESISTOR	1/10W 470Ω-J [50VED, 60VED]
R 141	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J [50VG, 60VG]
R 142	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 143	103P401010	CHIP RESISTOR	1/10W 68Ω-J [50VED, 60VED]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 144	103P401050	CHIP RESISTOR	1/10W 150Ω-J [50VED, 60VED]
R 145	103P400090	CHIP RESISTOR	1/10W 47Ω-J [50VED, 60VED]
R 147	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [50VED, 60VED]
R 148	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 149	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
R 150	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 202	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 205	103P405060	CHIP RESISTOR	1/10W 390kΩ-J
R 206	103P476070	CHIP RESISTOR	1/10W 56kΩ-F
R 207	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 208	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 209	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 210	103P402060	CHIP RESISTOR	1/10W 1. 2kΩ-J
R 211	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 212	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 213	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 214	103P402080	CHIP RESISTOR	1/10W 1. 8kΩ-J
R 215	103P473000	CHIP RESISTOR	1/10W 1. 6kΩ-F
R 216	103P472050	CHIP RESISTOR	1/10W 1kΩ-F
R 217	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 218	103P476000	CHIP RESISTOR	1/10W 30kΩ-F
R 219	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 220	103P474080	CHIP RESISTOR	1/10W 9. 1K
R 221	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 222	103P409050	CHIP RESISTOR	1/10W 0Ω
R 260	103P473030	CHIP RESISTOR	1/10W 2. 2kΩ-F
R 261	103P473070	CHIP RESISTOR	1/10W 3. 3kΩ-F
R 262	103P473030	CHIP RESISTOR	1/10W 2. 2kΩ-F
R 263	103P473030	CHIP RESISTOR	1/10W 2. 2kΩ-F
R 264	103P477050	CHIP RESISTOR	1/10W 120K
R 265	103P475070	CHIP RESISTOR	1/10W 22kΩ-F
R 266	103P476070	CHIP RESISTOR	1/10W 56kΩ-F
R 267	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 268	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 269	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 270	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 271	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 2A0	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 2A1	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 2A3	103P473040	CHIP RESISTOR	1/10W 2. 4kΩ-F
R 2A4	103P402040	CHIP RESISTOR	1/10W 820Ω-J
R 2A5	103P403010	CHIP RESISTOR	1/10W 3. 3kΩ-J
R 2A6	103P401060	CHIP RESISTOR	1/10W 180Ω-J
R 2A7	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2A9	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 2B0	103P401080	CHIP RESISTOR	1/10W 270Ω-J [50VED, 60VED]
R 2B0	103P471000	CHIP RESISTOR	1/10W 240Ω-F [50VG, 60VG]
R 2B1	103P402040	CHIP RESISTOR	1/10W 820Ω-J [50VED, 60VED]
R 2B1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [50VG, 60VG]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2B2	103P402030	CHIP RESISTOR	1/10W 680Ω-J [50VED, 60VED]
R 2B2	103P402090	CHIP RESISTOR	1/10W 2. 2kΩ-J [50VG, 60VG]
R 2B3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2B5	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2B6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2B7	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 2B8	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2B9	103P401060	CHIP RESISTOR	1/10W 180Ω-J
R 2C0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2C1	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 2C2	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2C3	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2C4	103P403010	CHIP RESISTOR	1/10W 3. 3kΩ-J
R 2C6	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2C8	103P473080	CHIP RESISTOR	1/10W 3. 6kΩ-F
R 2D0	103P402070	CHIP RESISTOR	1/10W 1. 5kΩ-J
R 2D1	103P402060	CHIP RESISTOR	1/10W 1. 2kΩ-J
R 2D2	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2D3	103P403020	CHIP RESISTOR	1/10W 3. 9kΩ-J
R 2D4	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2D5	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 2D7	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2D8	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 2D9	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2E0	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2E1	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2E2	103P402090	CHIP RESISTOR	1/10W 2. 2kΩ-J
R 2E3	103P403000	CHIP RESISTOR	1/10W 2. 7kΩ-J
R 2E4	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2E5	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2E6	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 2E7	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 2E8	103P403060	CHIP RESISTOR	1/10W 8. 2kΩ-J
R 2E9	103P402080	CHIP RESISTOR	1/10W 1. 8kΩ-J
R 2F0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2F1	103P402090	CHIP RESISTOR	1/10W 2. 2kΩ-J
R 2F2	103P402070	CHIP RESISTOR	1/10W 1. 5kΩ-J
R 2F3	103P403030	CHIP RESISTOR	1/10W 4. 7kΩ-J
R 2F4	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2F5	103P402090	CHIP RESISTOR	1/10W 2. 2kΩ-J
R 2F6	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2F7	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2F9	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2G0	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 2G1	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 2G2	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2G3	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2G4	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2G5	103P402060	CHIP RESISTOR	1/10W 1. 2kΩ-J
R 2H1	103P402060	CHIP RESISTOR	1/10W 1. 2kΩ-J
R 2H2	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2H3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2H4	103P404010	CHIP RESISTOR	1/10W 22kΩ-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2H8	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2H9	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 2J2	103P402080	CHIP RESISTOR	1/10W 1.8kΩ-J
R 2J4	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 2J5	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 2J6	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 2K1	103P470060	CHIP RESISTOR	1/10W 160Ω-F
R 2L1	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2L2	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2L3	103P402080	CHIP RESISTOR	1/10W 1.8kΩ-J
R 2L5	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2L6	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 2P0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2P2	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J [50VED, 60VED]
R 2T2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2T3	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2T4	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J [50VED, 50VG, 60VG]
R 2T5	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J [50VED, 50VG, 60VG]
R 2301	103P402010	CHIP RESISTOR	1/10W 470Ω-J [50VG, 60VG]
R 2303	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
R 2304	103P402010	CHIP RESISTOR	1/10W 470Ω-J [60VG]
R 2306	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
R 2307	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [50VED, 60VED]
R 2307	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J [50VG, 60VG]
R 2309	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 2309	103P402010	CHIP RESISTOR	1/10W 470Ω-J [50VG, 60VG]
R 2310	103P359050	CHIP RESISTOR	1/8W 0Ω [50VED, 60VED]
R 2311	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2312	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 2312	103P402010	CHIP RESISTOR	1/10W 470Ω-J [50VG, 60VG]
R 2313	103P359050	CHIP RESISTOR	1/8W 0Ω [50VED, 60VED]
R 2314	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2315	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [50VED, 60VED]
R 2315	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J [50VG, 60VG]
R 2605	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 2606	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J [50VG, 60VG]
R 2607	103P403090	CHIP RESISTOR	1/10W 15kΩ-J [50VG, 60VG]
R 2608	103P403090	CHIP RESISTOR	1/10W 15kΩ-J [50VG, 60VG]
R 2609	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J [50VG, 60VG]
R 2612	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2613	103P401070	CHIP RESISTOR	1/10W 220Ω-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2615	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 2618	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J [50VG, 60VG]
R 2619	103P404080	CHIP RESISTOR	1/10W 82kΩ-J [50VG, 60VG]
R 2620	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [50VG, 60VG]
R 2621	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [50VG, 60VG]
R 2622	103P404050	CHIP RESISTOR	1/10W 47kΩ-J [50VG, 60VG]
R 2623	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 2627	103P409090	CHIP RESISTOR	1/10W 75Ω-J [50VG, 60VG]
R 2632	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 2634	103P403090	CHIP RESISTOR	1/10W 15kΩ-J [50VG, 60VG]
R 2635	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 2636	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J [50VG, 60VG]
R 2637	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 2640	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 301	103P400010	CHIP RESISTOR	1/10W 10Ω-J
R 302	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 305	103P404070	CHIP RESISTOR	1/10W 68kΩ-J [60VG]
R 305	103P473030	CHIP RESISTOR	1/10W 2.2kΩ-F[60VED]
R 307	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 308	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 309	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 310	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 311	103P400020	CHIP METAL	1/10W 12Ω-J
R 312	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 3A0	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 3A1	103P400010	CHIP RESISTOR	1/10W 10Ω-J
R 3A2	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 3A4	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3A5	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 3A6	103P402020	CHIP RESISTOR	1/10W 560Ω-J [50VED, 50VG]
R 3A6	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J [60VED, 60VG]
R 3A7	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 3A8	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 3A9	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 3B0	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 3B1	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 3B2	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 3B3	103P473020	CHIP RESISTOR	1/10W 2kΩ-F
R 3B4	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 3B6	103P409050	CHIP RESISTOR	1/10W 0Ω
R 3B7	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 3B8	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 3B9	103P404000	CHIP RESISTOR	1/10W 18kΩ-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 3C0	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3C1	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3C4	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3C5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3C6	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 3C7	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 3C8	103P404000	CHIP RESISTOR	1/10W 18kΩ-J [60VED, 60VG]
R 3D3	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3D4	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 3000	103P471080	CHIP RESISTOR	1/10W 510Ω-F
R 3001	103P471080	CHIP RESISTOR	1/10W 510Ω-F
R 3002	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3003	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3004	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 3005	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 3006	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 3007	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 3008	103P405060	CHIP RESISTOR	1/10W 390kΩ-J
R 3101	103P475060	CHIP RESISTOR	1/10W 20kΩ-F [50VED, 60VED]
R 3101	103P475020	CHIP RESISTOR	1/10W 13kΩ-F [50VG, 60VG]
R 3102	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3103	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3105	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3106	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 3107	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 3109	103P404000	CHIP RESISTOR	1/10W 18kΩ-J [50VED, 60VED]
R 3110	103P404040	CHIP RESISTOR	1/10W 39kΩ-J [50VED, 60VED]
R 3111	103P404040	CHIP RESISTOR	1/10W 39kΩ-J [50VED, 60VED]
R 3113	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3114	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 3115	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 3117	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 3117	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J [50VG, 60VG]
R 3119	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 3120	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3121	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3122	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [60VG]
R 3123	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [60VG]
R 3126	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 3128	103P476020	CHIP RESISTOR	1/10W 36kΩ-F [60VG]
R 3201	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J
R 3202	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J
R 3203	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 3250	103P409050	CHIP RESISTOR	1/10W 0Ω
R 3257	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3258	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 3260	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3400	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 3402	103P403090	CHIP RESISTOR	1/10W 15kΩ-J [60VED, 60VG]
R 3404	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3406	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 3407	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 3408	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 3409	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 3410	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 3411	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 3412	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 3413	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 3416	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3417	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 3418	103P472050	CHIP RESISTOR	1/10W 1kΩ-F
R 3419	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 3420	103P473060	CHIP RESISTOR	1/10W 3kΩ-F
R 3421	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 3504	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 3505	103P474090	CHIP RESISTOR	1/10W 10kΩ-F [50VED, 50VG, 60VED]
R 3506	103P474090	CHIP RESISTOR	1/10W 10kΩ-F [50VED, 50VG, 60VED]
R 4A0	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4A1	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 4A2	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 4A3	103P472070	CHIP RESISTOR	1/10W 1.2kΩ-F
R 4A4	103P472070	CHIP RESISTOR	1/10W 1.2kΩ-F
R 4A5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 4A6	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 4A7	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 4A9	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 4B0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 4B1	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 4B2	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 4B3	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4B4	103P405040	CHIP RESISTOR	1/10W 270kΩ-J
R 4B5	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 4B6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 4B7	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4B8	103P405050	CHIP RESISTOR	1/10W 330kΩ-J
R 4B9	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 4C0	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 4C1	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 4C2	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 4C5	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 4C6	103P405010	CHIP RESISTOR	1/10W 150kΩ-J
R 4C7	103P405010	CHIP RESISTOR	1/10W 150kΩ-J
R 4C8	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 4C9	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 4D0	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4D1	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 4D2	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 4D3	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4D4	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 4D5	103P405050	CHIP RESISTOR	1/10W 330kΩ-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 4D6	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 4D7	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 4D8	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 4D9	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 4E0	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 4E1	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 501	103P409050	CHIP RESISTOR	1/10W 0Ω
R 503	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 504	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 505	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 506	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 507	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 508	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 509	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 510	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 511	103P472060	CHIP RESISTOR	1/10W 1.1kΩ-F
R 512	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 513	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 514	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 515	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 516	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 518	103P474030	CHIP RESISTOR	1/10W 5.6kΩ-F
R 519	103P473090	CHIP RESISTOR	1/10W 3.9kΩ-F
R 520	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 521	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 522	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 5A0	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5A1	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 5A2	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 5A3	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 5A4	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5A6	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5A8	103P475010	CHIP RESISTOR	1/10W 12kΩ-F
R 5A9	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 5B4	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 5B5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5B6	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5B7	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5B9	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 5C0	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5C1	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5C2	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 5C3	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 5C4	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5C5	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 5C6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5C8	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 5C9	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 5D1	103P403080	CHIP RESISTOR	1/10W 12kΩ-J [60VED, 60VG]
R 5D2	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J [60VED, 60VG]
R 5D6	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J
R 5D7	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5E0	103P404080	CHIP RESISTOR	1/10W 82kΩ-J
R 5E1	103P478020	CHIP RESISTOR	1/10W 240kΩ-F
R 5E2	103P477050	CHIP RESISTOR	1/10W 120K
R 5E3	103P476080	CHIP RESISTOR	1/10W 62kΩ-F
R 5E4	103P476000	CHIP RESISTOR	1/10W 30kΩ-F
R 5E5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5E6	103P475030	CHIP RESISTOR	1/10W 15kΩ-F
R 5E7	103P476070	CHIP RESISTOR	1/10W 56kΩ-F
R 5E8	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 5E9	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 5F0	103P405070	CHIP RESISTOR	1/10W 470kΩ-J
R 5F2	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5F3	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J
R 5G2	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 5G3	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 5G4	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5G7	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 5G8	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5G9	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5H0	103P406090	CHIP METAL	1/10W 4.7MΩ-K
R 5H1	103P406090	CHIP METAL	1/10W 4.7MΩ-K
R 5H2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5H3	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 5H4	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5H7	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5H8	103P404070	CHIP RESISTOR	1/10W 68kΩ-J
R 5H9	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 5J2	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J [50VG, 60VG]
R 5K0	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 50VG]
R 5K4	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5K5	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 701	103P472000	CHIP RESISTOR	1/10W 620Ω-F
R 702	103P472000	CHIP RESISTOR	1/10W 620Ω-F
R 703	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 705	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 716	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 718	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 719	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 720	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 722	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 723	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 7A1	103P403090	CHIP RESISTOR	1/10W 15kΩ-J [50VED, 60VED]
R 7A2	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [50VED, 60VED]
R 7A4	103P402000	CHIP RESISTOR	1/10W 390Ω-J [50VED, 60VED]
R 7A5	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
R 7B0	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J [50VED, 60VED]
R 7B3	103P402080	CHIP RESISTOR	1/10W 1.8kΩ-J [50VED, 60VED]
R 7B4	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J [50VED, 60VED]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 7B5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [50VED, 60VED]
R 7B6	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [50VED, 60VED]
R 7B7	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [50VED, 60VED]
R 7B8	103P402020	CHIP RESISTOR	1/10W 560Ω-J [50VED, 60VED]
R 7B9	103P402010	CHIP RESISTOR	1/10W 470Ω-J [50VED, 60VED]
R 7G2	103P401060	CHIP RESISTOR	1/10W 180Ω-J [50VED, 60VED]
R 7G6	103P400090	CHIP RESISTOR	1/10W 47Ω-J [50VED, 60VED]
R 7H0	103P474000	CHIP RESISTOR	1/10W 4.3kΩ-F [50VED, 60VED]
R 7H1	103P402020	CHIP RESISTOR	1/10W 560Ω-J [50VED, 60VED]
R 7H4	103P474000	CHIP RESISTOR	1/10W 4.3kΩ-F [50VED, 60VED]
R 7H5	103P402020	CHIP RESISTOR	1/10W 560Ω-J [50VED, 60VED]
R 7H6	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J [50VED, 60VED]
R 801	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 802	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 803	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 804	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 805	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 901	109D036040	COMPOSITION	1/2W 8.2MΩ-K
R 903	109P052010	FUSE	1/4W 100Ω-J
R 911	109P052050	FUSE	1/4W 6.8Ω-J
R 920	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 921	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 922	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 923	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
RJ102	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ103	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ104	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ105	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ109	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ115	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ119	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ203	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ204	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ206	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ207	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ208	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ209	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ210	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ211	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ212	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ213	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ214	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ215	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ216	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ217	103P409050	CHIP RESISTOR	1/10W 0Ω [60VED, 60VG]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
RJ218	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ219	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ220	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ221	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ222	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ223	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ225	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ226	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ228	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ229	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ234	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ235	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ236	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ237	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ238	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2001	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2004	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2006	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2701	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2702	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2703	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2704	103P409050	CHIP RESISTOR	1/10W 0Ω [60VED, 60VG]
RJ2706	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2707	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2708	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2709	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2710	103P409050	CHIP RESISTOR	1/10W 0Ω [60VED, 60VG]
RJ2711	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2712	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2714	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED, 60VG]
RJ2716	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2717	103P409050	CHIP RESISTOR	1/10W 0Ω [60VG]
RJ2718	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2719	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2720	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2721	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2722	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2723	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2725	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2726	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2727	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2729	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2730	103P409050	CHIP RESISTOR	1/10W 0Ω [60VED, 60VG]
RJ2731	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VED]
RJ2733	103P409050	CHIP RESISTOR	1/10W 0Ω [50VG, 60VG]
RJ2734	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2735	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ2740	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ301	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ302	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ303	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ304	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ305	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ306	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 50VG]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
RJ307	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ309	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ310	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ313	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ314	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ315	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ316	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ317	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ318	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ319	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ320	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ321	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ322	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ323	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A1	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A2	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A3	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A5	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A6	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A7	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A8	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3A9	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3001	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 50VG, 60VED]
RJ3003	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3004	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
RJ3005	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 60VED]
RJ3006	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3007	103P404050	CHIP RESISTOR	1/10W 47kΩ-J [60VED]
RJ3007	103P404040	CHIP RESISTOR	1/10W 39kΩ-J [60VG]
RJ3008	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3009	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 50VG, 60VED]
RJ3010	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3011	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3012	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3013	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3014	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3015	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3016	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ3017	103P409050	CHIP RESISTOR	1/10W 0Ω [50VED, 50VG]
RJ401	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ402	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ403	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ404	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ405	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ406	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ501	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ502	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ503	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ504	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ505	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ506	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ507	103P409050	CHIP RESISTOR	1/10W 0Ω

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
RJ508	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ509	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ511	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ512	103P409050	CHIP RESISTOR	1/10W 0Ω [60VG]
RJ513	103P409050	CHIP RESISTOR	1/10W 0Ω [60VG]
RJ514	103P409050	CHIP RESISTOR	1/10W 0Ω [60VG]
RJ515	103P409050	CHIP RESISTOR	1/10W 0Ω [60VG]
RJ516	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ518	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ519	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ520	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ523	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ524	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ5001	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ5002	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ5003	103P409050	CHIP RESISTOR	1/10W 0Ω

CAPACITORS AND TRIMMERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 15	141P130090	CHIP CAPACITOR	B50V 1000pF-K [50VED, 60VED]
C 15	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K [50VG, 60VG]
C 101	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 102	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 103	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K [50VED, 60VED]
C 104	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 105	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 106	154P331010	CHIP CAPACITOR	CH50V 10pF-C [50VG, 60VG]
C 107	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 108	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 109	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 112	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 113	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 114	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 116	154P321080	CHIP CAPACITOR	SL50V 18pF-J [50VG, 60VG]
C 117	154P331050	CHIP CAPACITOR	CH50V 15pF-J
C 118	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K
C 119	154P322040	CHIP CAPACITOR	SL50V 33pF-J [50VED, 60VED]
C 119	154P322060	CHIP CAPACITOR	SL50V 39pF-J [50VG, 60VG]
C 122	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 124	141P134010	CHIP CAPACITOR	F50V 0.047M
C 126	141P131020	CHIP CAPACITOR	B50V 1800pF-K
C 127	154P325080	CHIP CAPACITOR	SL50V 820pF
C 138	141P137080	CHIP CAPACITOR	B25V 0.047M
C 139	141P132010	CHIP CAPACITOR	B50V 0.01 μF-K [50VED, 60VED]
C 142	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z [50VED, 60VED]
C 201	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 202	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 203	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 204	154P322060	CHIP CAPACITOR	SL50V 39pF-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 205	154P322060	CHIP CAPACITOR	SL50V 39pF-J
C 206	141P136030	CHIP CAPACITOR	F16V 1 μ F-Z
C 207	141P136030	CHIP CAPACITOR	F16V 1 μ F-Z
C 208	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 209	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 210	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 212	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 213	154P333010	CHIP CAPACITOR	CH50V 68pF-J
C 214	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 215	154P323000	CHIP CAPACITOR	SL50V 56pF-J
C 216	154P322040	CHIP CAPACITOR	SL50V 33pF-J
C 217	154P323040	CHIP CAPACITOR	SL50V 82pF-J
C 218	154P324020	CHIP CAPACITOR	SL50V180pF-J
C 219	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 220	141P137080	CHIP CAPACITOR	B25V 0.047M
C 221	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 260	141P130050	CHIP CAPACITOR	B50V 470pF-K
C 261	141P132010	CHIP CAPACITOR	B50V 0.01 μ F-K
C 2A0	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2A1	154P323020	CHIP CAPACITOR	SL50V 68pF-J
C 2A2	154P325020	CHIP CAPACITOR	SL50V 470pF
C 2A3	154P325000	CHIP CAPACITOR	SL50V 390pF-J
C 2A4	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2A5	154P322060	CHIP CAPACITOR	SL50V 39pF-J
C 2A7	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2A8	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2A9	154P324000	CHIP CAPACITOR	SL50V 150pF-J
C 2B0	154P324000	CHIP CAPACITOR	SL50V 150pF-J
C 2B1	154P323020	CHIP CAPACITOR	SL50V 68pF-J
C 2B3	154P323060	CHIP CAPACITOR	SL50V 100pF-J
C 2B4	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2B5	154P322040	CHIP CAPACITOR	SL50V 33pF-J
C 2B6	154P322060	CHIP CAPACITOR	SL50V 39pF-J
C 2B8	154P323020	CHIP CAPACITOR	SL50V 68pF-J
C 2B9	154P324040	CHIP CAPACITOR	SL50V 220pF-J
C 2C1	154P325000	CHIP CAPACITOR	SL50V 390pF-J
C 2C2	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 2C3	154P322000	CHIP CAPACITOR	SL50V 22pF-J
C 2C4	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 2C7	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2C8	141P137040	CHIP CAPACITOR	B25V 0.022M
C 2C9	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2D3	141P137040	CHIP CAPACITOR	B25V 0.022M
C 2D4	154P323040	CHIP CAPACITOR	SL50V 82pF-J
C 2D6	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2E0	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2E2	154P320080	CHIP CAPACITOR	SL50V 6pF-C
C 2E3	154P322020	CHIP CAPACITOR	SL50V 27pF-J
C 2E4	154P322040	CHIP CAPACITOR	SL50V 33pF-J
C 2E5	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 2E9	154P321080	CHIP CAPACITOR	SL50V 18pF-J
C 2F1	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2F2	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 2F3	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2F6	141P137080	CHIP CAPACITOR	B25V 0.047M
C 2F8	141P137080	CHIP CAPACITOR	B25V 0.047M
C 2F9	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 2H0	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 2H1	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2H2	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2S0	154P322000	CHIP CAPACITOR	SL50V 22pF-J
C 2S3	154P322060	CHIP CAPACITOR	SL50V 39pF-J [50VED, 60VED]
C 2S3	154P322000	CHIP CAPACITOR	SL50V 22pF-J [50VG, 60VG]
C 2303	141P131090	CHIP CAPACITOR	B50V 6800pF-K [50VG, 60VG]
C 2306	141P131090	CHIP CAPACITOR	B50V 6800pF-K [50VG, 60VG]
C 2307	141P130030	CHIP CAPACITOR	B50V 330pF-K [50VED, 60VED]
C 2307	141P130040	CHIP CAPACITOR	B50V 390pF-K [50VG, 60VG]
C 2308	141P130030	CHIP CAPACITOR	B50V 330pF-K [50VED, 60VED]
C 2308	141P130050	CHIP CAPACITOR	B50V 470pF-K [50VG, 60VG]
C 2311	141P131090	CHIP CAPACITOR	B50V 6800pF-K [50VG, 60VG]
C 2314	141P131090	CHIP CAPACITOR	B50V 6800pF-K [50VG, 60VG]
C 2315	141P130030	CHIP CAPACITOR	B50V 330pF-K [50VED, 60VED]
C 2315	141P130010	CHIP CAPACITOR	B50V 220pF-K [50VG, 60VG]
C 2316	141P130030	CHIP CAPACITOR	B50V 330pF-K [50VED, 60VED]
C 2316	141P130010	CHIP CAPACITOR	B50V 220pF-K [50VG, 60VG]
C 2610	141P132010	CHIP CAPACITOR	B50V 0.01 μ F-K [50VG, 60VG]
C 2615	141P132010	CHIP CAPACITOR	B50V 0.01 μ F-K
C 2617	154P324080	CHIP CAPACITOR	SL50V 330pF-J [50VG, 60VG]
C 2620	154P324080	CHIP CAPACITOR	SL50V 330pF-J [50VG, 60VG]
C 2622	154P324080	CHIP CAPACITOR	SL50V 330pF-J [60VG]
C 301	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 302	141P135080	CHIP CAPACITOR	F25V 0.1 μ F-Z
C 304	141P133080	CHIP CAPACITOR	F50V 0.01 μ F-Z
C 305	141P135080	CHIP CAPACITOR	F25V 0.1 μ F-Z
C 307	141P132010	CHIP CAPACITOR	B50V 0.01 μ F-K
C 308	154P324040	CHIP CAPACITOR	SL50V 220pF-J
C 309	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 310	141P133080	CHIP CAPACITOR	F50V 0.01 μ F-Z
C 311	154P323060	CHIP CAPACITOR	SL50V 100pF-J
C 312	154P323060	CHIP CAPACITOR	SL50V 100pF-J
C 313	141P133080	CHIP CAPACITOR	F50V 0.01 μ F-Z
C 314	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 315	141P139030	CHIP CAPACITOR	B25V 0.1 μ F-K
C 3A0	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 3A1	141P130080	CHIP CAPACITOR	B50V 820pF-K

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 3A9	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 3B9	141P135010	CHIP CAPACITOR	F25V 0.33μF-Z
C 3C0	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 3C3	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 3010	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 3011	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 3012	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 3013	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 3014	141P130020	CHIP CAPACITOR	B50V 270pF-K
C 3252	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 3352	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 3354	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 3400	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 3401	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 4A2	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 4A3	154P324020	CHIP CAPACITOR	SL50V 180pF-J
C 4A4	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 4B0	141P131080	CHIP CAPACITOR	B50V 5600pF-K
C 4B1	141P131080	CHIP CAPACITOR	B50V 5600pF-K
C 4B3	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 4B5	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 4B6	141P139000	CHIP CAPACITOR	B25V 0.056μF-K
C 4B8	141P139010	CHIP CAPACITOR	B25V 0.068μF-K
C 4B9	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 4C0	141P131050	CHIP CAPACITOR	B50V 3300pF-K
C 4C4	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 4C5	141P133090	CHIP CAPACITOR	F50V 0.022M
C 4C9	141P131060	CHIP CAPACITOR	B50V 3900pF-K
C 4D0	141P131010	CHIP CAPACITOR	B50V 1500pF
C 4D3	141P137070	CHIP CAPACITOR	B25V 0.039μF-K
C 501	154P330060	CHIP CAPACITOR	CH50V 5pF-C
C 502	154P330060	CHIP CAPACITOR	CH50V 5pF-C
C 504	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 505	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 507	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 508	141P137080	CHIP CAPACITOR	B25V 0.047M
C 509	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 510	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 511	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 512	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 530	141P131010	CHIP CAPACITOR	B50V 1500pF
C 5A1	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 5A2	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 5A5	189P197020	C-ELE-DOUBLE-LAYER	AC310G473Z5R5
C 5A7	141P135080	CHIP CAPACITOR	F25V 0.1μF-Z
C 5A9	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 5B5	141P134010	CHIP CAPACITOR	F50V 0.047M
C 5B7	141P131030	CHIP CAPACITOR	B50V 2200pF-K
C 5C0	154P331010	CHIP CAPACITOR	CH50V 10pF-C
C 5C1	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 5C2	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 5C3	154P331010	CHIP CAPACITOR	CH50V 10pF-C
C 5C4	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 5C6	141P132000	CHIP CAPACITOR	B50V 8200pF-K [60VED, 60VG]
C 5C7	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 5E1	141P133090	CHIP CAPACITOR	F50V 0.022M
C 5E2	141P133090	CHIP CAPACITOR	F50V 0.022M
C 701	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 703	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 704	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 705	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 706	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 707	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 708	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 709	154P330070	CHIP CAPACITOR	CH50V 6pF-C
C 711	154P333050	CHIP CAPACITOR	CH50V 100pF-J
C 713	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 720	154P332070	CHIP CAPACITOR	CH50V 47pF-J
C 7A1	141P139030	CHIP CAPACITOR	B25V 0.1μF-K [50VED, 60VED]
C 7A3	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7A4	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7A5	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7A8	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7A9	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7B0	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7B1	141P139030	CHIP CAPACITOR	B25V 0.1μF-K [50VED, 60VED]
C 7B2	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7B3	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7B4	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7B5	141P139030	CHIP CAPACITOR	B25V 0.1μF-K [50VED, 60VED]
C 7B6	154P332050	CHIP CAPACITOR	CH50V 39pF-J [50VED, 60VED]
C 7B7	141P130090	CHIP CAPACITOR	B50V 1000pF-K [50VED, 60VED]
C 7B8	141P130050	CHIP CAPACITOR	B50V 470pF-K [50VED, 60VED]
C 7B9	141P139030	CHIP CAPACITOR	B25V 0.1μF-K [50VED, 60VED]
C 7C2	141P139030	CHIP CAPACITOR	B25V 0.1μF-K [50VED, 60VED]
C 7C3	141P139030	CHIP CAPACITOR	B25V 0.1μF-K [50VED, 60VED]
C 7C7	141P130090	CHIP CAPACITOR	B50V 1000pF-K [50VED, 60VED]
C 7C8	141P130090	CHIP CAPACITOR	B50V 1000pF-K [50VED, 60VED]
C 7D0	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7D6	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 7D7	141P139010	CHIP CAPACITOR	B25V 0.068μF-K [50VED, 60VED]
C 7D8	141P131040	CHIP CAPACITOR	B50V 2700pF-K [50VED, 60VED]
C 7E0	141P139010	CHIP CAPACITOR	B25V 0.068μF-K [50VED, 60VED]
C 7E1	141P131040	CHIP CAPACITOR	B50V 2700pF-K [50VED, 60VED]
C 7E2	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 7E4	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [50VED, 60VED]
C 801	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 802	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 804	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 805	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 806	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 807	154P331010	CHIP CAPACITOR	CH50V 10pF-C
C 808	154P331050	CHIP CAPACITOR	CH50V 15pF-J
C 901	189P153040	C-METAL-P-FILM	AC250V 0.1μF-M [50VG, 60VG]
C 902	189P153040	C-METAL-P-FILM	AC250V 0.1MμF-M [50VG, 60VG]

SWITCHES

S 5A0	439P033010	SWITCH	RIS MPU10101MMBO
S 5A1	432P166010	KEY BOARD SWITCH	RESET
S 8A1	432P089040	KEY BOARD SWITCH	STOP
S 8A2	432P089040	KEY BOARD SWITCH	POWER
S 8A3	432P089020	KEY BOARD SWITCH	FF [50VED, 50VG]
S 8A3	432P089040	KEY BOARD SWITCH	INSERT [60VED, 60VG]
S 8B1	432P089040	KEY BOARD SWITCH	PLAY
S 8B2	432P089040	KEY BOARD SWITCH	EJECT
S 8B3	432P089020	KEY BOARD SWITCH	REW [50VED, 50VG]
S 8B3	432P089040	KEY BOARD SWITCH	AUDIO DUB [60VED, 60VG]
S 8C1	432P089020	KEY BOARD SWITCH	REC/OTR [50VED, 50VG]
S 8C1	432P089040	KEY BOARD SWITCH	REC/OTR [60VED, 60VG]
S 8C2	432P089040	KEY BOARD SWITCH	ONE KEY PROGRAM
S 8C3	432P089040	KEY BOARD SWITCH	CH-DOWN [50VED, 50VG]
S 8D1	432P089020	KEY BOARD SWITCH	PAUSE [50VED, 50VG]
S 8D1	432P089040	KEY BOARD SWITCH	PAUSE [60VED, 60VG]
S 8D2	432P089040	KEY BOARD SWITCH	RENT PB
S 8D3	432P089040	KEY BOARD SWITCH	CH-UP [50VED, 50VG]
S 8J0	439P034010	SWITCH JOG	JOG SHUTTLE [60VED, 60VG]
S 8S0	431C099050	SLIDE SWITCH	TAPE OPT. [60VED, 60VG]
S 8S1	431C099010	SLIDE SWITCH	MIX [60VED, 60VG]

MISCELLANEOUS

	243C125010	CARD LEAD	9P L=50 REV
CU 01	295D059010	RF CONVERTER	
F 901	283D046080	FUSE	T630MA
F 902	283D047050	FUSE	T2.5A
F 903	283D047050	FUSE	T2.5A
J 2001	451C058020	CONNECTOR	21P
J 2002	451C058020	CONNECTOR	21P
J 2A0	451C096040	PIN JACK	RED

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
J 2A1	451C096010	PIN JACK	WHITE
J 5A0	451C096030	PIN JACK	BLACK [60VED, 60VG]
J 8A0	440C267050	PIN JACK(3P)	YEL, WHT, RED [60VED, 60VG]
J 8A3	451C104010	JACK HEADPHONE	BLACK [60VED, 60VG]
J 8A4	451C104010	JACK HEADPHONE	BLACK [60VG]
K 3A0	287P020010	RELAY	MZ12-B DC12V [60VED, 60VG]
M 470	288P126010	MOTOR CAPSTAN	F2QKB79
M 570	288P088060	MOTOR DRUM	DC12V 3.3W
M 571	288D034010	MOTOR LOADING ASSY	
MA 0A	243C073010	CARD LEAD	9P L=130(MX-PX) [60VED, 60VG]
MB HB	243C048080	CARD LEAD	13P L110(CB-SB)
MC HC	243C024090	CARD LEAD	25P L=99(CK-TK)
MK TK	243C116040	CARD LEAD	27P L200(MK-TK)
P 5A0	286P010010	BUZZER	PKM22EPT-2001
S 570	439P031010	MODE SELECT SWITCH	(J)
T 370	460P060060	A/C HEAD	
T 371	460P153010	FULL ERASE HEAD	
TU 01	295P418010	TUNER	TEKE4-071A [50VED, 60VED]
TU 01	295P417010	TUNER	ENV-578E7F1 [50VG, 60VG]
V 8A0	253P115020	TUBE FLUOR	BJ250GAK
VR8A1	129C153020	VR PCB	1/40W A2kΩ-N 17.5 [60VG]
X 2A0	285P083010	CRYSTAL RESONATOR	4.43362MHz
X 501	285P084010	CRYSTAL RESONATOR	17.7345MHz
X 5A0	285P054030	CRYSTAL RESONATOR	32.8kHz
X 5A1	285P235010	CRYSTAL RESONATOR	8.3886MHz
X 701	285P204020	CRYSTAL RESONATOR	10MHz
X 7A0	285P197010	CRYSTAL RESONATOR	16.384MHz [50VED, 60VED]
X 801	285P166020	CRYSTAL RESONATOR	27MHz
Z 8A0	939P580010	PREAMP UNIT	TFMT 5330

PRINTED CIRCUIT BOARD ASSY'S

	928D219001	HA/AUDIO PCB ASSY	[50VED]
	928D219002	HA/AUDIO PCB ASSY	[50VG]
	928D219003	HA/AUDIO PCB ASSY	[60VED]
	928D219004	HA/AUDIO PCB ASSY	[60VG]
	928D216003	HIFI PCB ASSY	[50VED]
	928D216005	HIFI PCB ASSY	[50VG]
	928D216012	HIFI PCB ASSY	[60VED]
	928D216013	HIFI PCB ASSY	[60VG]
	927B787003	MAIN PCB ASSY	[50VED]
	927B787005	MAIN PCB ASSY	[50VG]
	927B787012	MAIN PCB ASSY	[60VED]
	927B787013	MAIN PCB ASSY	[60VG]
	928D218002	POWER-SUB PCB ASSY	[50VED, 60VED]
	928D218001	POWER-SUB PCB ASSY	[50VG, 60VG]
	928D217002	REAR PCB ASSY	[50VED]
	928D217004	REAR PCB ASSY	[50VG]
	928D217010	REAR PCB ASSY	[60VED]
	928D217011	REAR PCB ASSY	[60VG]

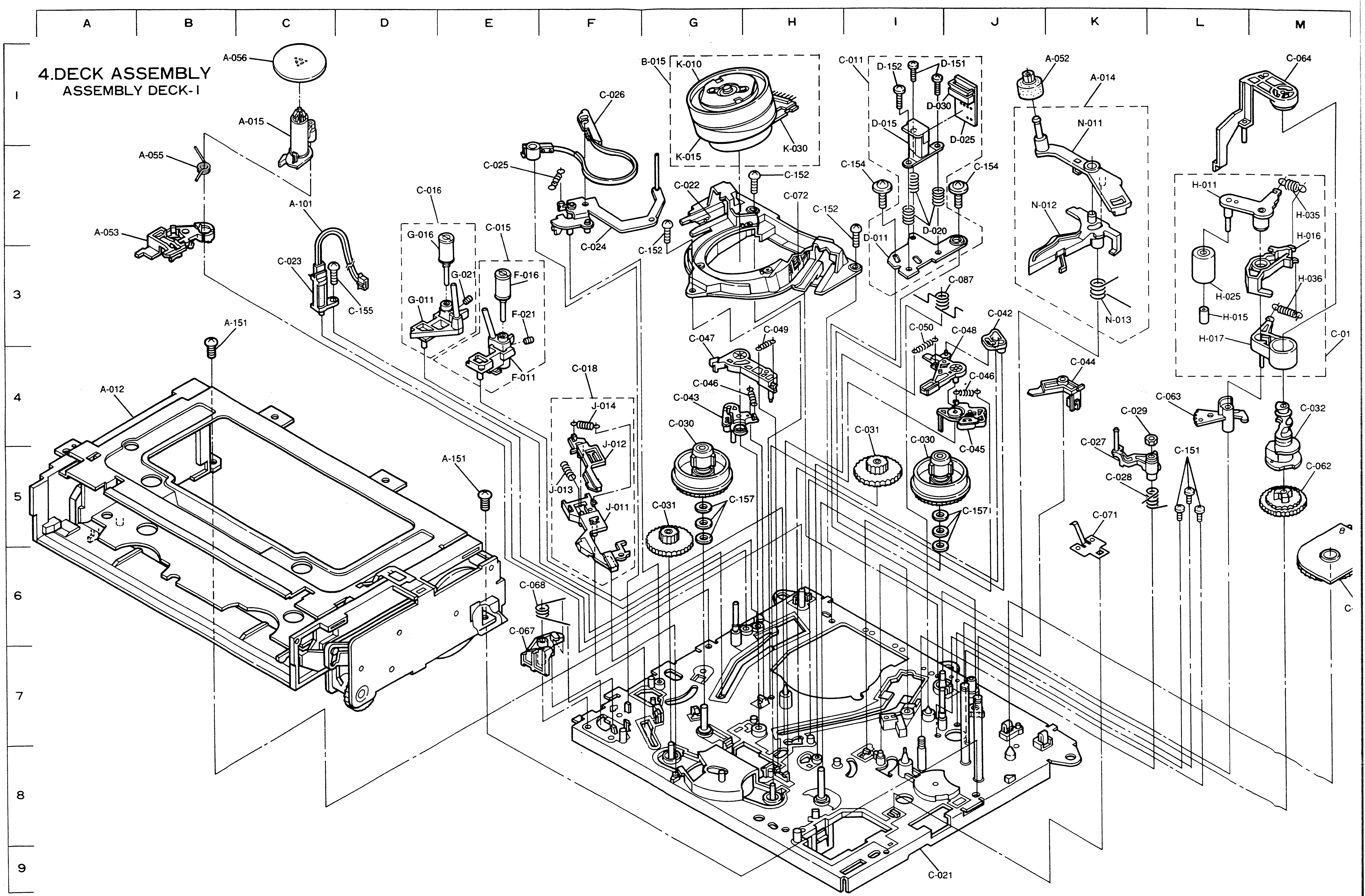
SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	927B791003	TIMER PCB ASSY	[50VED]
	927B791005	TIMER PCB ASSY	[50VG]
	927B809003	TIMER PCB ASSY	[60VED]
	927B809004	TIMER PCB ASSY	[60VG]
	928D220001	YC/CG PCB ASSY	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	927B791003	TIMER PCB ASSY	[50VED]
	927B791005	TIMER PCB ASSY	[50VG]
	927B809003	TIMER PCB ASSY	[60VED]
	927B809004	TIMER PCB ASSY	[60VG]
	928D220001	YC/CG PCB ASSY	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION

4.DECK ASSEMBLY

ASSEMBLY DECK-1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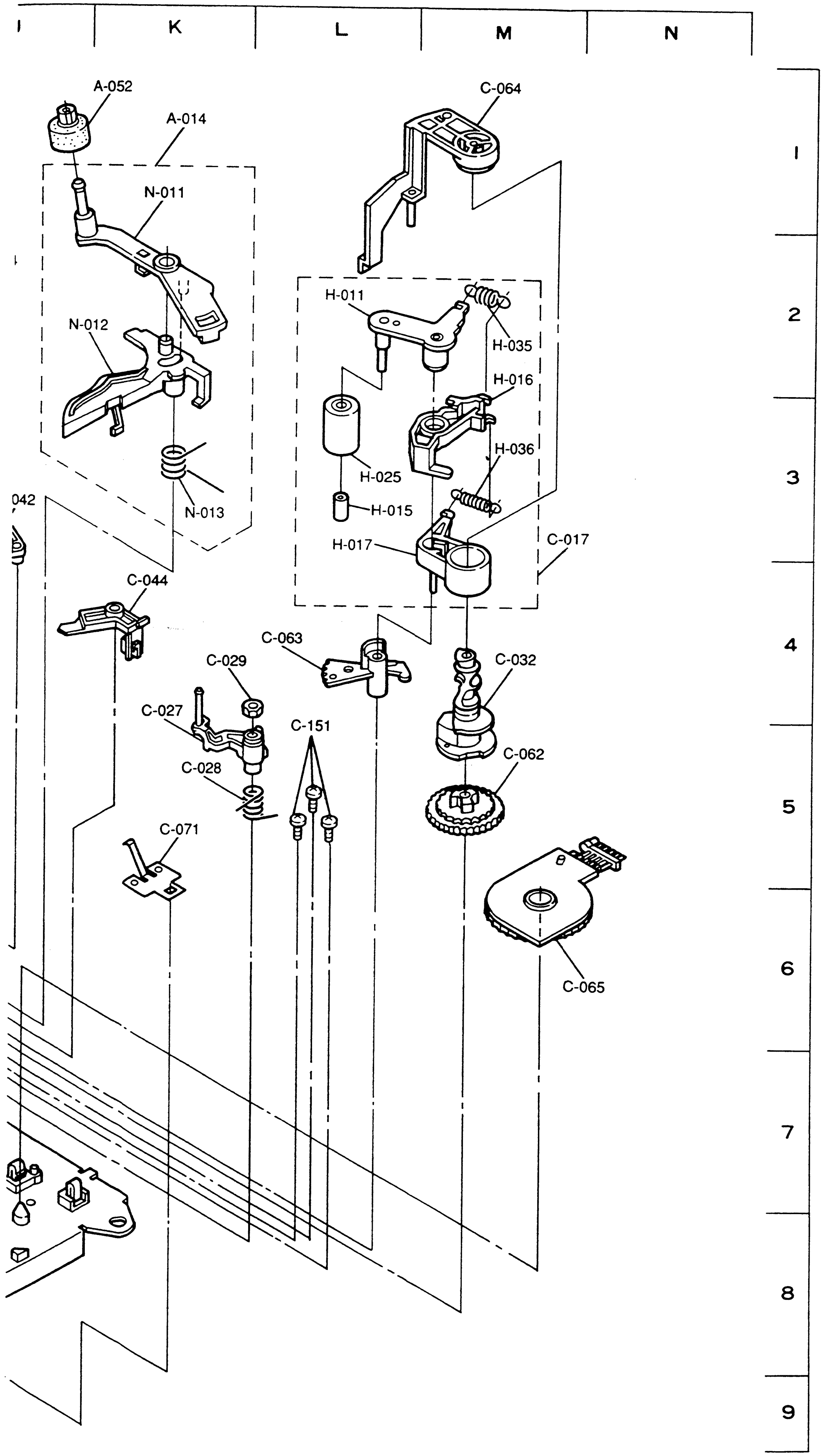


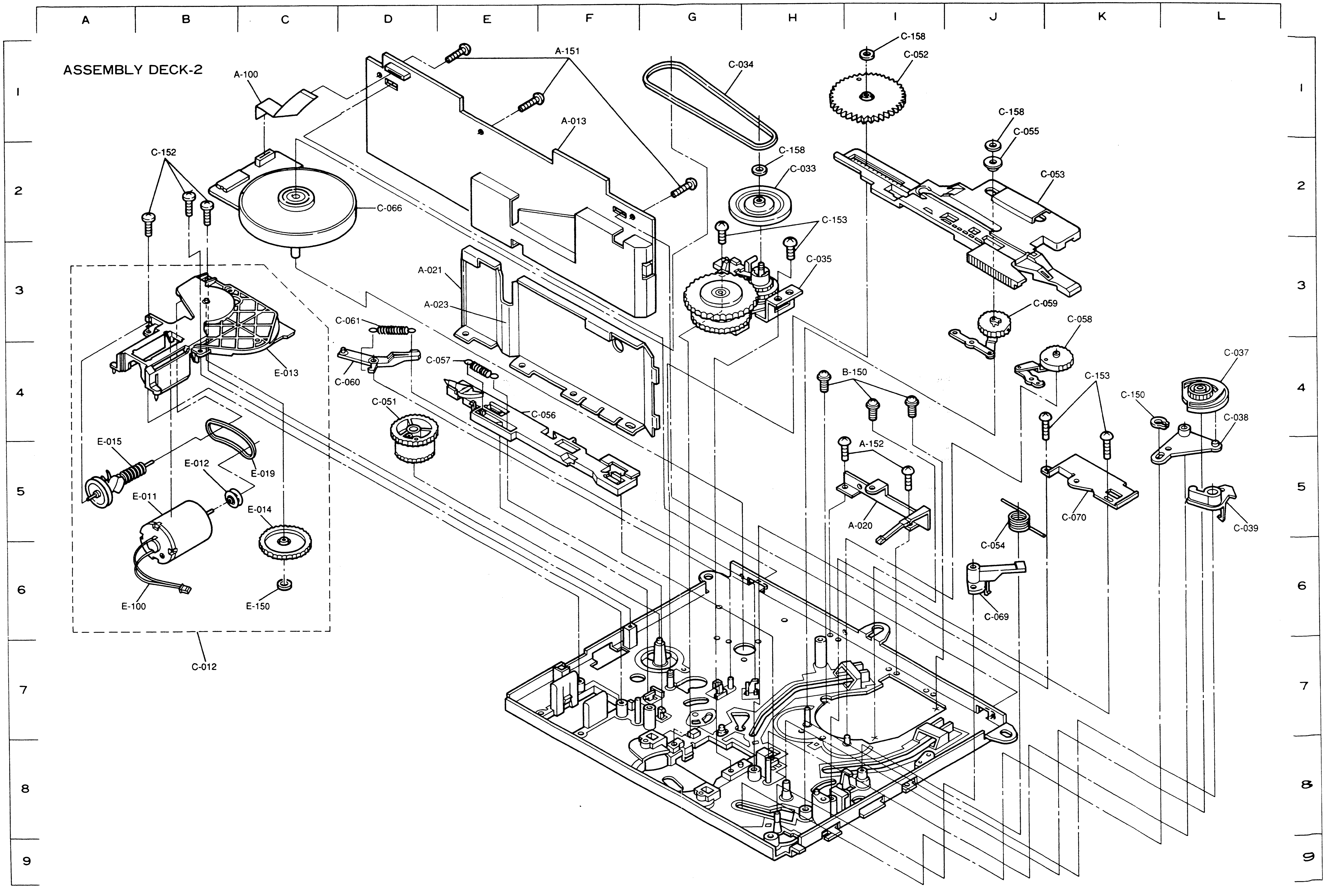
* Settelled Service Parts

ITEM	PARTS No.	*	ADDRESS		PARTS NAME	DESCRIPTION	Qt.
A-012	948A155001	○	A-4		ASSY-F/L-J	[50VED, 60VED]	01
A-012	948A155002	○	A-4		ASSY-F/L-J	[50VG, 60VG]	01
A-014	948B349001		K-2		ASSY-CLE		01
N-011	641B680010	○	K-2		ARM-CLE		01
N-012	641B681010	○	K-3		LEVER-CLE		01
N-013	572D703010	○	K-3		SPRING-CLE		01
B-015	948B358021	○	G-2		ASSY-DRUM		01
K-010	928B984015	○	G-1		ASSY-UPPR-DRUM		01
K-015	927B681021		G-2		ASSY-LOWER-DRUM		01
K-030	288P088060	○	H-2		MOTOR-DRUM	M570	01
C-011	928D104002	○	I-1		ASSY-A/C-HEAD		01
D-011	593C399010		I-2		PLATE-A/C		01
D-015	460P060060	○	I-1		HEAD	T370	01
D-020	572D639010		I-2		SPRING-A/C		03
D-025	215C730010		J-1		PWB-A/C-JA		01
D-030	452C140060		J-1		CONNECTOR-PC2M(S)		01
D-151	669D483010		I-1		SCREW	M2.6×8	02
D-152	669D485010		I-1		SCREW	2.6×8	01
C-015	948D042001	○	E-3		ASSY-TAPE-GUIDE-T		01
C-015	948D042002	○	E-3		ASSY-TAPE-GUIDE-T		01
C-015	948D042003	○	E-3		ASSY-TAPE-GUIDE-T		01
F-011	635B085010	○	E-4		TAPE-GUIDE-T		01
F-011	635B085020	○	E-4		TAPE-GUIDE-T		01
F-011	635B085030	○	E-4		TAPE-GUIDE-T		01
F-016	522D177010	○	E-3		GUIDE-ROLLER		01
F-021	669D197020		E-4		SET-SCREW-F	D=M3×0.5 L=4	01
C-016	948D043001	○	D-3		ASSY-TAPE-GUIDE-S		01
C-016	948D043002	○	D-3		ASSY-TAPE-GUIDE-S		01
C-016	948D043003	○	D-3		ASSY-TAPE-GUIDE-S		01
G-011	635B086010	○	D-3		TAPE-GUIDE-S		01
G-011	635B086020	○	D-3		TAPE-GUIDE-S		01
G-011	635B086030	○	D-3		TAPE-GUIDE-S		01
G-016	522D177010	○	D-3		GUIDE-ROLLER		01
G-021	669D197020		E-3		SET-SCREW-F	D=M3×0.5 L=4	01
C-017	948D044001	○	M-3		ASSY-ARM-PINCH		01
H-011	593C465010		L-2		ARM-PINCH		01
H-015	622D235010	○	L-3		CAP-ROLLER		01
H-016	621C243010		M-3		LEVER-PINCH		01
H-017	621C241010		M-3		SLIDER-PINCH		01
H-025	522D174010	○	L-3		ROLLER-PINCH		01
H-035	572D314010	○	M-2		SPRING-PINCH		01
H-036	572D714010	○	M-3		SPRING-CAM-PINCH		01
C-018	948C315001		F-4		ASSY-CHARGE		01
J-011	641B629010	○	F-6		LEVER-SWING-ID		01
J-012	621C238010	○	F-5		LEVER-REV		01
J-013	572D684010		F-5		SPRING-CHARGE		01
J-014	572D624010	○	F-5		SPRING-REV		01
C-021	948A159001		I-9		ASSY-MAIN-PLATE		01
C-022	635A038010		G-2		DRUM-BASE		01
C-023	460P153010	○	C-3		HEAD-FE	T371	01

* Settelled Service Parts

ITEM	PARTS No.	*	ADDRESS		PARTS NAME	DESCRIPTION	Qt.
C-024	592B049010	○	F-3		ARM-TENSION		01
C-025	572D627010	○	F-2		SPRING-TENS		01
C-026	641B624020	○	F-2		BELT-TENS-BRAKE		01
C-027	635B084010	○	K-5		ARM-TU-G		01
C-028	572D647010	○	K-5		SPRING-TU-G		01
C-029	674D081020	○	K-5		NUT-NYLON	M3×0.5	01
C-030	522C092010	○	I-5	G-5	UNIT-REEL-DISK		02
C-031	621C234010	○	I-5	G-6	GEAR-R		02
C-032	641B630010	○	M-4		CAM-PINCH-J		01
C-042	621C315010	○	J-4		LEVER-SUB-OFF		01
C-043	641B635020	○	G-4		BRAKE-MAIN-S		01
C-044	622D219010	○	K-4		LEVER-RELEASE-M/B		01
C-045	641B634020	○	J-4		BRAKE-MAIN-T		01
C-046	572D635010	○	H-4	J-4	SPRING-M/B-J		02
C-047	641B633010	○	G-4		BRAKE-SUB-S		01
C-048	641B632020	○	I-4		BRAKE-SUB-T		01
C-049	572D623010	○	H-4		SPRING-SUB-S		01
C-050	572D625010	○	I-4		SPRING-SUB-T		01
C-062	621C240010	○	M-5		GEAR-PINCH		01
C-063	635C098010	○	L-4		GEAR-TU-G		01
C-064	641B628010	○	M-1		CAP-CAM-PINCH		01
C-065	439P031010	○	N-6		SW-MODE-J	S570	01
C-067	641B641010	○	E-7		LEVER-RIS		01
C-068	572D646010	○	E-6		SPRING-RIS		01
C-071	597D102010		K-5		PLATE-EB		01
C-072	572D712010	○	H-3		SPRING-DB		01
C-087	572D697010		I-3		SPRING-AC-EARTH		01
C-151	669D285040		L-5		SCREW-TB-PAN	M2.6×8	03
C-152	669D224020		G-3 I-3	H-2	SCREW-TB	2.6×8	03
C-154	669D476020	○	I-2	J-2	SCREW-TB-SEMS	2.6×8	02
C-155	669D224030		D-3		SCREW-TB	2.6×10	01
C-157	552C017030	○	G-5	J-5	WASHER-THRUST	2.5×6×0.13	06
A-015	948C322001		C-1		ASSY-IMP-S		01
A-052	621C033010	○	J-1		UNIT-CLE-ROLLER		01
A-053	641B699010	○	A-2		HOLDER-TG		01
A-055	572D721010		B-2		SPRING-IMP-J		01
A-056	597D168010		B-1		FLYWHEEL-J		01
A-101	248B173040		C-3		LEAD-CONNECTOR-S		01
A-120	641C685010		E-7		CLAMPER-LEAD-F/L		01
A-151	669D224020		B-4	E-5	SCREW-TB	2.6×8	02

ASSEMBLY DECK-2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A-100
A-151
A-013
C-034
C-158
C-052
C-158
C-055
C-053
C-152
C-066
C-158
C-033
C-153
C-035
A-021
A-023
E-013
C-061
C-060
C-057
C-056
C-051
C-059
C-058
C-037
B-150
C-153
C-150
C-038
A-152
E-015
E-012
E-019
E-011
E-014
A-020
C-070
C-039
C-054
E-100
E-150
C-069
C-012

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ITEM
A-013
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E-011
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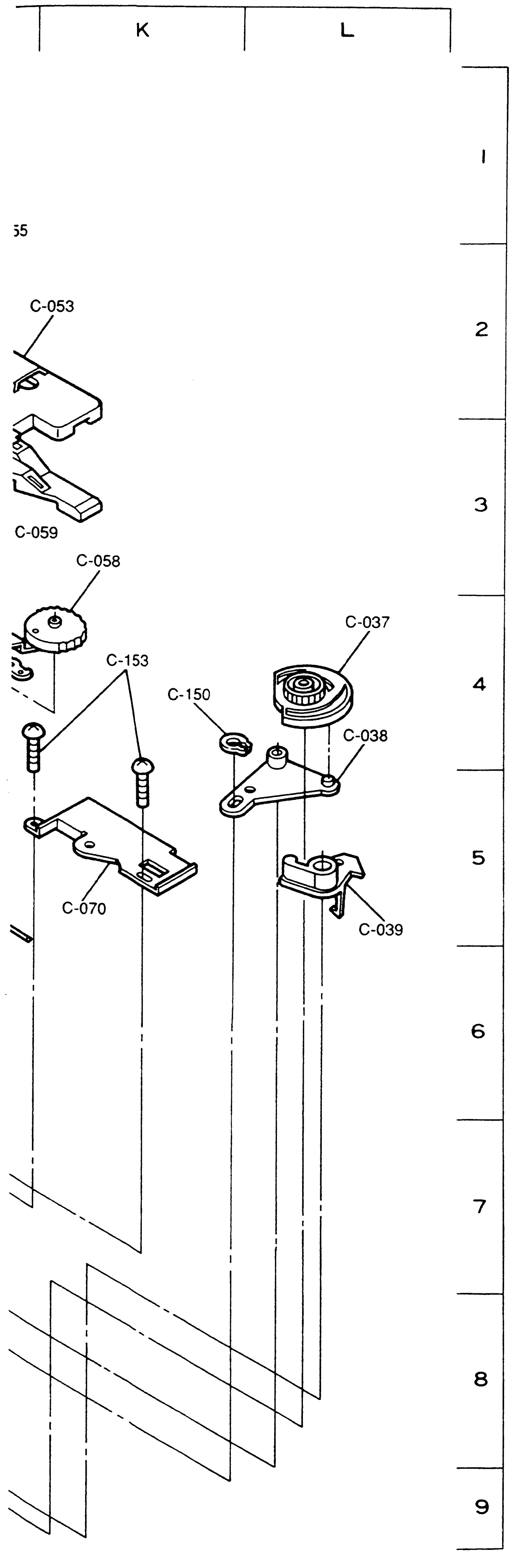
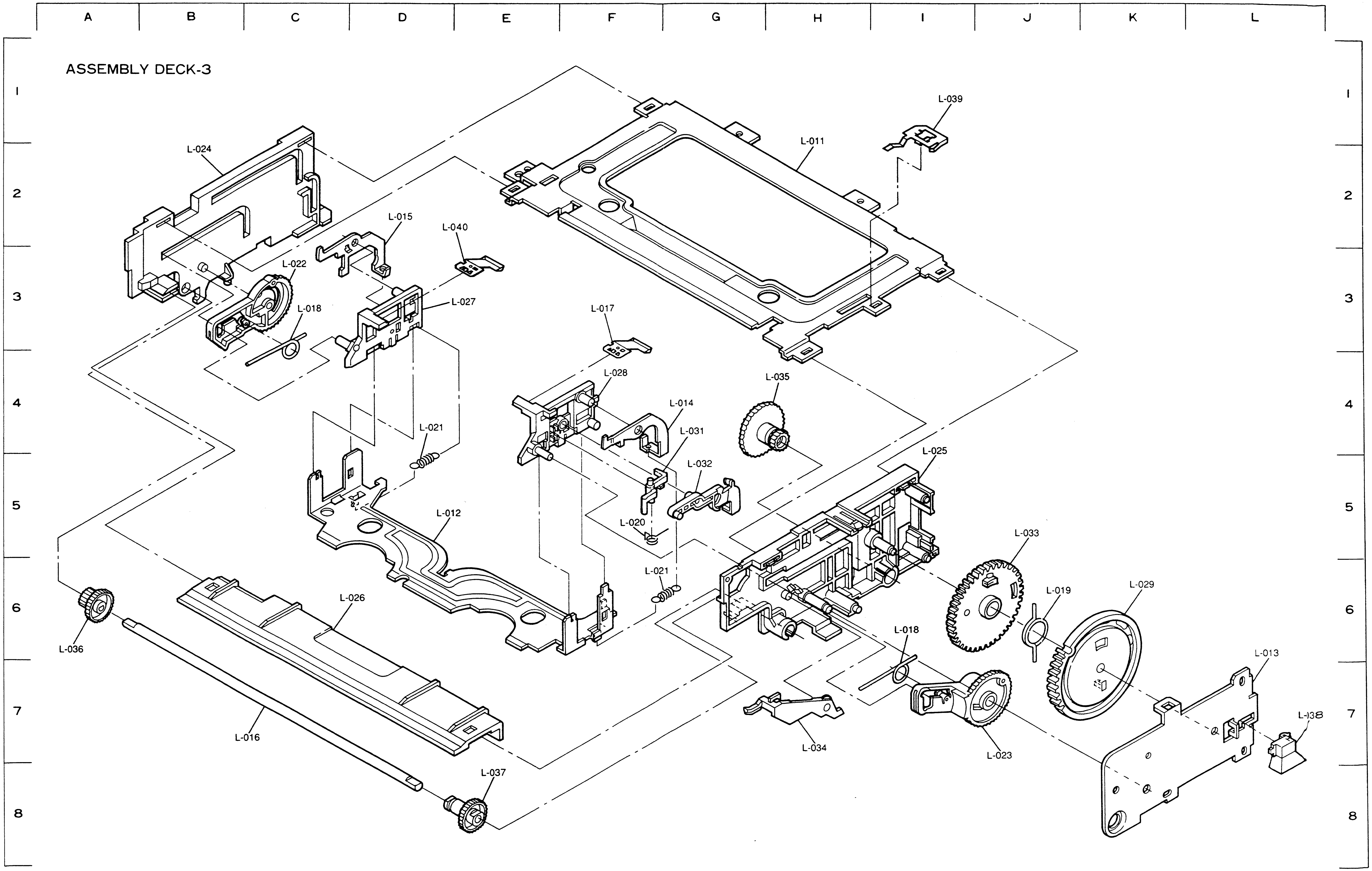
C-158



＊Settelled Service Parts

ITEM	PARTS No.	＊	ADDRESS		PARTS NAME	DESCRIPTION	Qt.
A-013	928D219001	○	F-2		ASSY-PWB-HA/AUDIO	[50VED]	01
A-013	928D219002	○	F-2		ASSY-PWB-HA/AUDIO	[50VG]	01
A-013	928D219003	○	F-2		ASSY-PWB-HA/AUDIO	[60VED]	01
A-013	928D219004	○	F-2		ASSY-PWB-HA/AUDIO	[60VG]	01
C-012	928D105001		B-7		ASSY-L-MOTOR		01
E-011	288D034010	○	B-5		MOTOR-LOADING		01
E-012	622D220010		B-5		PULLEY-MOTOR		01
E-013	641B640010		C-4		HOLDER-MOTOR-J		01
E-014	621C258010	○	C-6		GEAR-A		01
E-015	621C259010	○	A-5		PULLEY-WORM-J		01
E-019	521D082010	○	C-5		BELT-LM		01
E-100	248B173020		B-6		LEAD-CONNECTOR-S		01
E-150	552C018020		C-6		CUT-WASHER	2.5×4.7×0.5	01
A-020	299C030010	○	I-5		BRUSH		01
A-021	292B204010		D-3		SHIELD-PLATE-HAK		01
A-023	223D533010		D-3		BARRIER-HA		01
A-100	243C125010	○	C-1		LEAD-CARD		01
A-151	669D224020		E-1 G-2	E-2	SCREW-TB	2.6×8	03
A-152	669D224010		I-5		SCREW-TB	2.6×6	02
B-150	669D200020		I-4		SCREW-SEMS	M2.6×0.45-6	03
C-033	621C254010	○	H-2		PULLEY-BELT		01
C-034	521D081010	○	G-1		BELT-REEL-J		01
C-035	522B057010	○	H-3		UNIT-REEL-IDLER		01
C-037	621C235010	○	L-4		CAM-GEAR-R		01
C-038	622D229010	○	L-5		LEVER-CHARGE		01
C-039	622D223010	○	L-5		LEVER-T-OFF		01
C-051	621C257010	○	D-5		GEAR-JOINT-J		01
C-052	641B637010	○	I-1		MAIN-GEAR-J		01
C-053	641A311010	○	J-2		PLATE-CAM-B		01
C-054	572D640010		J-5		SPRING-CAM-B		01
C-055	622D224010	○	J-2		ROLLER-B		01
C-056	641B636010	○	E-4		PLATE-CAM-C		01
C-057	572D636010	○	E-4		SPRING-CAM-C		01
C-058	592B048010	○	K-4		ARM-LOAD-S		01
C-059	592B047010	○	J-4		ARM-LOAD-T		01
C-060	621C261010	○	D-4		BRAKE-CP		01
C-061	572D645010	○	D-3		SPRING-B-CP		01
C-066	288P126010	○	C-2		MOTOR-CP	M470	01
C-069	621C308010	○	J-6		ARM-RIS		01
C-070	593C532010	○	K-5		PLATE-J		01
C-150	685C009010	○	K-4		GRIP-RING		01
C-152	669D224020		B-2		SCREW-TB	2.6×8	03
C-153	669D224010		K-4 G-3	K-5 H-3	SCREW-TB	2.6×6	04
C-158	552C018010	○	J-2 H-2	I-1	CUT-WASHER	2.5×6.0×0.5	03

ASSEMBLY DECK-3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L-011
L-024
L-015
L-040
L-022
L-027
L-018
L-017
L-028
L-035
L-014
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L-021
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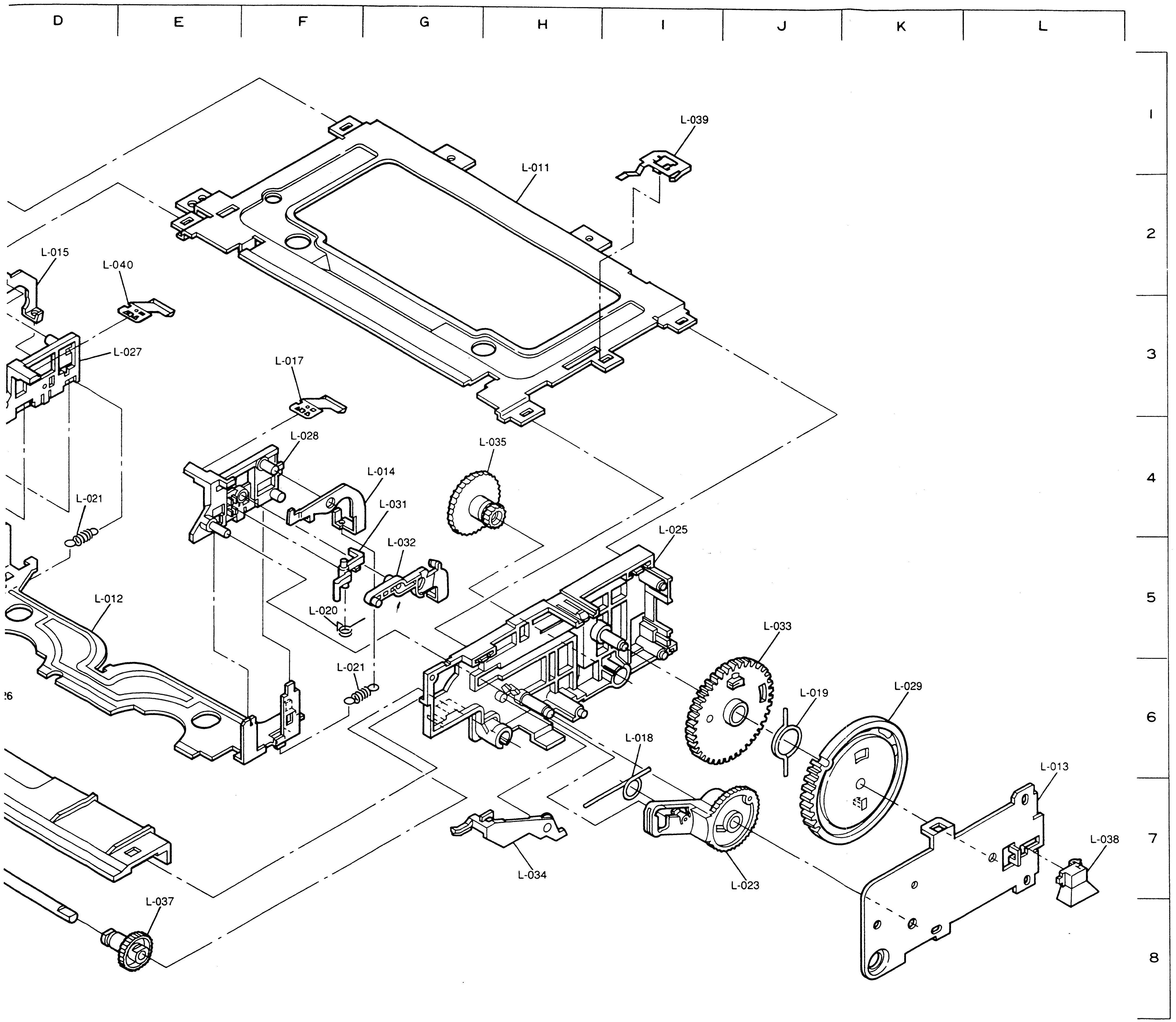
L-038
L-037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L-012
L-020
L-033
L-021
L-019
L-029
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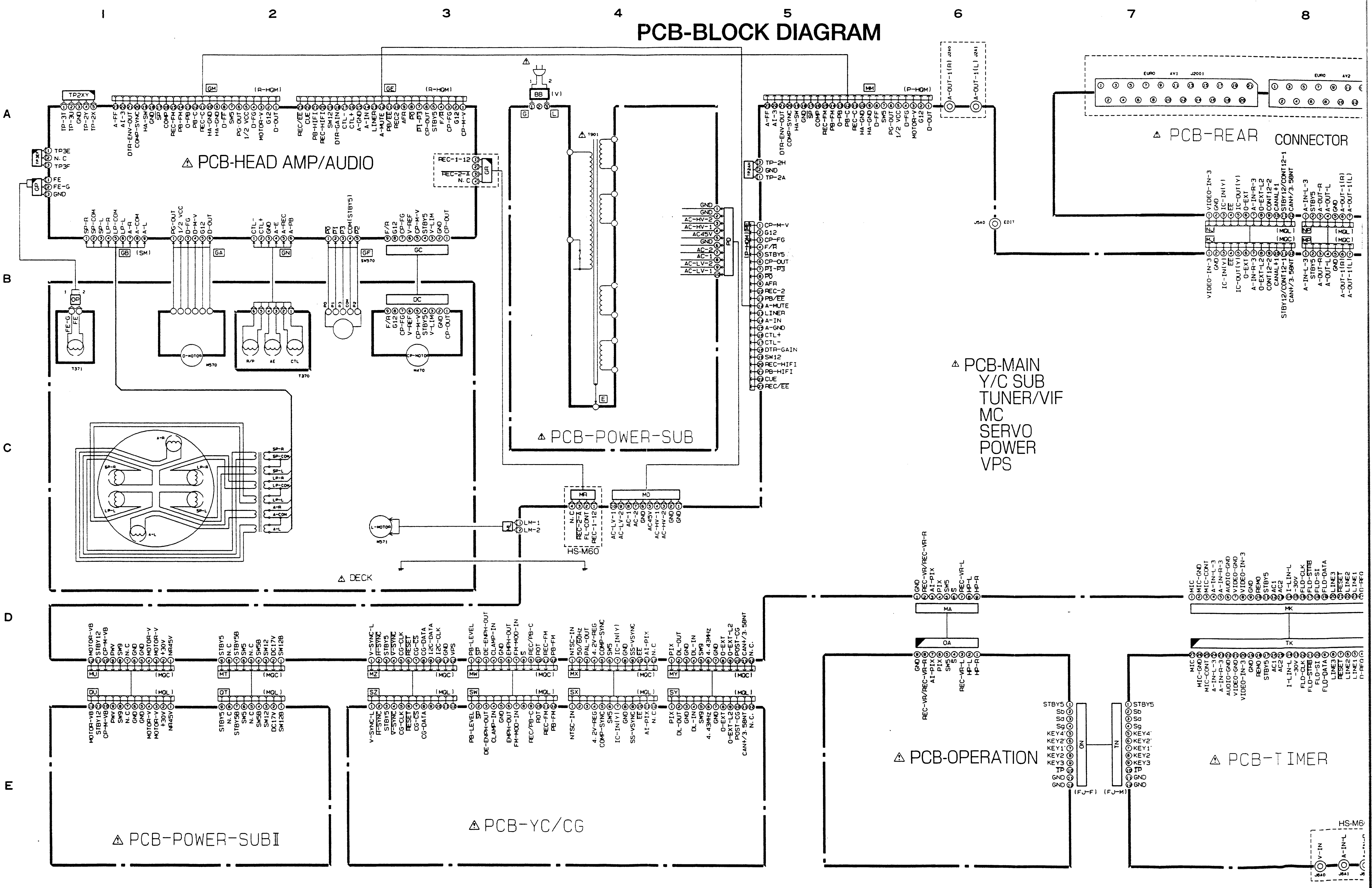
L-018
L-013
L-038
L-034
L-023
L-037

* Settelled Service Parts

ITEM	PARTS No.	*	ADDRESS		PARTS NAME	DESCRIPTION	Qt.
L-011	592B050010		H-2		PLATE-ROOF	[50VED, 60VED]	01
L-011	592B050020		H-2		PLATE-ROOF	[50VG, 60VG]	01
L-012	592B051010		D-5		PLATE-BOTTOM		01
L-013	592B079010		L-7		PLATE-SIDE		01
L-014	596D986010		F-4		LEVER-LOCK-T		01
L-015	596D987010		D-3		LEVER-LOCK-S		01
L-016	631D443010		C-7		SHAFT-FL		01
L-017	572D634010		F-4		PLATE-SPR		01
L-018	572D631010	○	C-4	I-7	SPRING-ARM		02
L-019	572D632010		J-6		SPRING-CHIP		01
L-020	572D633010		F-5		SPRING-JUT		01
L-021	572D630010		D-5	F-6	SPRING-LOCK-T		02
L-022	621C250010	○	C-3		ARM-SP		01
L-023	641B627010	○	I-7		ARM-TU		01
L-024	641A313010		B-2		HOLDER-SIDE-SP		01
L-025	641A312010		I-5		HOLDER-SIDE-TU		01
L-026	621C249010		C-6		GUIDE-INSERT		01
L-027	641B626010		D-3		HOLDER-CAS-SP		01
L-028	641B638010		F-4		HOLDER-CAS-TU		01
L-029	641B625010	○	K-7		GEAR-SENS		01
L-031	622D231010	○	F-5		JUT-J		01
L-032	621C245010		G-5		OPENER-LID		01
L-033	622D227010	○	J-6		GEAR-DRIVE		01
L-034	622D230010	○	H-7		ARM-DOOR		01
L-035	621C252010	○	G-4		GEAR-WHEEL		01
L-036	622D225010	○	A-6		GEAR-S		01
L-037	622D226010	○	E-8		GEAR-T		01
L-038	622D228010		L-7		COVER-SENS		01
L-039	597D085010		I-2		PLATE-EARTH		01
L-040	572D634020		D-3		PLATE-SPR		01

PCB-BLOCK DIAGRAM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A
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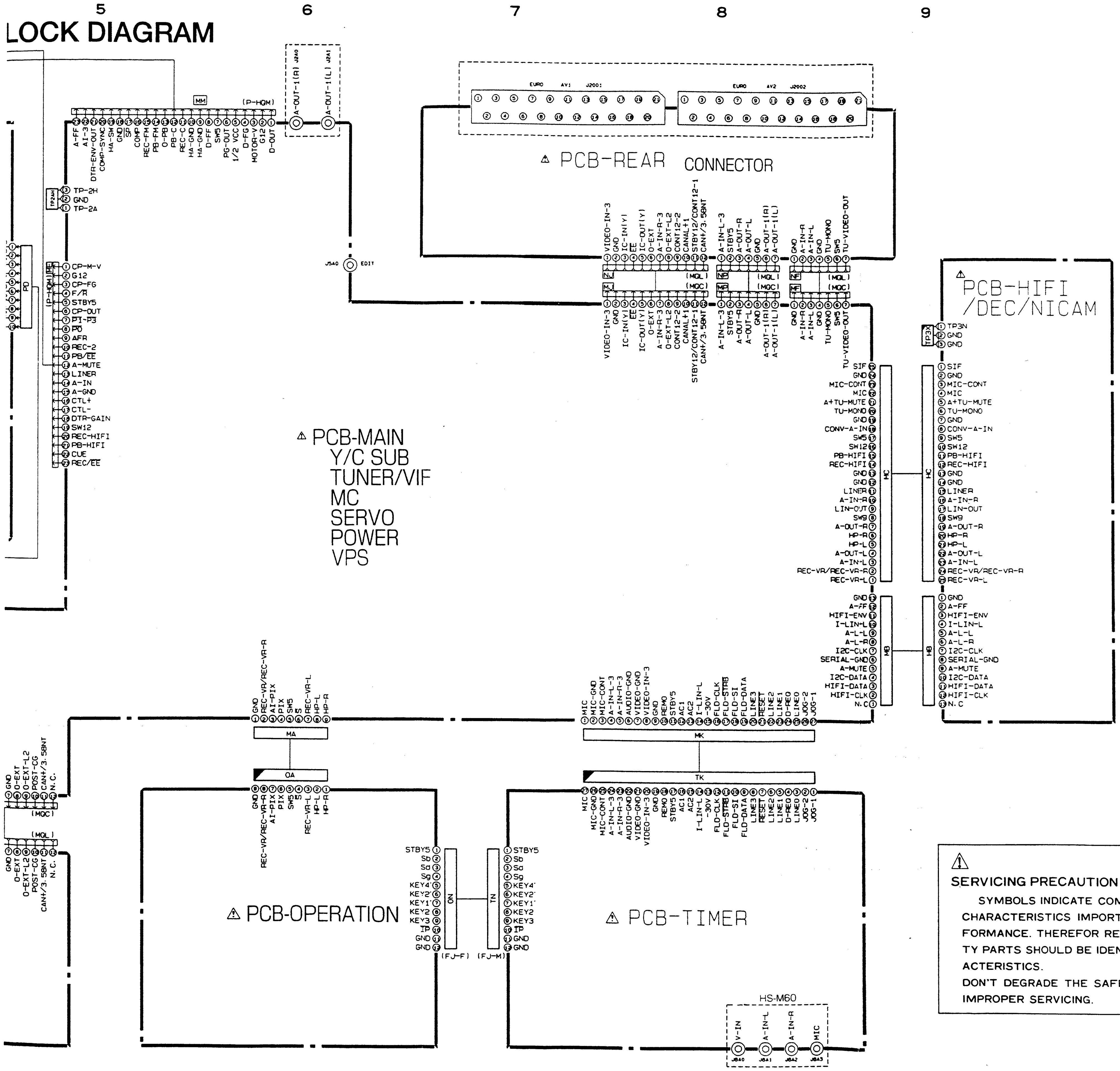
C
D
E
⚠ PCB-HEAD AMP/AUDIO
TP2XY
GM (R-HQM)
GF (R-HQM)
GR
REC-1-12
REC-2-A
N.C
TP3E
N.C
TP3F
FE
FE-G
GND
GB (SM)
GA
GN
GF
GC
DC
D-MOTOR
CP-MOTOR
R/P
AE
CTL
T370
T371
M570
M470
L-MOTOR
M571
LM-1
LM-2
⚠ DECK
BB (V)
T901
⚠ PCB-POWER-SUB
MR
MD
HS-M60
PD
MM (P-HQM)
A-OUT-1(R)
A-OUT-1(L)
EDIT
TP2AM
TP-2H
GND
TP-2A
⚠ PCB-REAR CONNECTOR
EURO AV1 J2001
EURO AV2
⚠ PCB-MAIN
Y/C SUB
TUNER/VIF
MC
SERVO
POWER
VPS
MA
OA
MK
TK
STBY5
KEY4
KEY2
KEY1
KEY3
IP
(FJ-F)
(FJ-M)
ON
TN
MU (MQC)
QU (MQL)
MT (MQC)
QT (MQL)
MZ (MQC)
SZ (MQL)
MW (MQC)
SW (MQL)
MX (MQC)
SX (MQL)
MY (MQC)
SY (MQL)
⚠ PCB-POWER-SUBⅡ
⚠ PCB-YC/CG
⚠ PCB-OPERATION
⚠ PCB-TIMER
HS-M6
V-IN
A-IN-L

LOCK DIAGRAM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11
MM
(P-HQM)
A-FF
AI-3
DTR-ENV-OUT
COMP-SYNC
HA-SW
GND
SP
COMP
REC-FM
PB-FM
O-PB
PB-C
REC-C
HA-GND
HA-GND
D-FF
SW5
PG-OUT
1/2 VCC
D-FG
MOTOR-V
G12
D-OUT
A-OUT-1(R) J240
A-OUT-1(L) J241
TP2H
TP-2H
GND
TP-2A
PD
(P-HQM)
CP-M-V
G12
CP-FG
F/R
STBY5
CP-OUT
PI-P3
PO
AFR
REC-2
PB/EE
A-MUTE
LINER
A-IN
A-GND
CTL+
CTL-
DTR-GAIN
SW12
REC-HIFI
PB-HIFI
CUE
REC/EE
J540 EDIT
EURO AV1 J2001
EURO AV2 J2002
⚠ PCB-REAR CONNECTOR
VIDEO-IN-3
GND
IC-IN(Y)
IC-OUT(Y)
O-EXT
A-IN-R-3
O-EXT-L2
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STBY12/CONT12-1
CAN+/3.58NT
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STBY5
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A-OUT-L
GND
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A-OUT-1(L)
GND
A-IN-R
A-IN-L
GND
TU-MONO
SW5
TU-VIDEO-OUT
(MQL)
(MQC)
⚠ PCB-MAIN
Y/C SUB
TUNER/VIF
MC
SERVO
POWER
VPS
⚠ PCB-HIFI /DEC/NICAM
TP3N
GND
GND
MC
HC
SIF
GND
MIC-CONT
MIC
A+TU-MUTE
TU-MONO
GND
CONV-A-IN
SW5
SW12
PB-HIFI
REC-HIFI
GND
GND
LINER
A-IN-R
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HP-L
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HIFI-ENV
I-LIN-L
A-L-L
A-L-R
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SERIAL-GND
A-MUTE
I2C-DATA
HIFI-DATA
HIFI-CLK
N.C
MA
OA
GND
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AI-PIX
PIX
SW5
S5
REC-VR-L
HP-L
HP-R
MK
TK
MIC
MIC-GND
MIC-CONT
A-IN-L-3
A-IN-R-3
AUDIO-GND
VIDEO-GND
VIDEO-IN-3
GND
REMO
STBY5
AC1
AC2
I-LIN-L
-30V
FLD-CLK
FLD-STB
FLD-SI
FLD-DATA
LINE3
RESET
LINE2
LINE1
D-REO
LINEO
JOG-2
JOG-1
GND
O-EXT
O-EXT-L2
POST-CG
CAN+/3.58NT
N.C.
(MQC)
(MQL)
⚠ PCB-OPERATION
ON
TN
STBY5
Sb
Sd
Sg
KEY4
KEY2
KEY1
KEY3
TP
GND
GND
(FJ-F)
(FJ-M)
⚠ PCB-TIMER
HS-M60
V-IN
A-IN-L
A-IN-R
MIC
J640
J641
J642
J643

CONTENTS	
①	PCB-BLOCK DIAGRAM
②	PCB-MAIN (TUNER/VIF)
③	PCB-HEAD-AMP /FLE/AUDIO PCB-MAIN (VPS)
④	PCB-REAR (CONNECTOR) PCB-HIFI/DEC/NICAM (NICAM/DEC)
⑤	PCB-HIFI/DEC/NICAM (HIFI)
⑥	PCB-YC/CG (YC) (CG)
⑦	PCB-MAIN (Y/C SUB)
⑧	PCB-MAIN (MC)
⑨	PCB-MAIN (SERVO) (POWER)
⑩	PCB-TIMER
⑪ ~ ⑱	PATTERN TRANSMITTER REMOTE CONTROL

⚠

SERVICING PRECAUTION

SYMBOLS INDICATE COMPONENTS HAVING SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY AND PERFORMANCE. THEREFOR REPLACEMENT OF ANY SAFETY PARTS SHOULD BE IDENTICAL IN VALUE AND CHARACTERISTICS.

DON'T DEGRADE THE SAFETY OF THE VCR THROUGH IMPROPER SERVICING.

SCHEMATIC DIAGRAM

• NOTE

1. Each voltage should be within ±20% of the DC voltages measured with a digital voltmeter.
2. The voltages parenthesised are on SP recording mode. While those without parenthesised on SP play back mode.
3. Waveforme were taken with standard colour bar signal.
4. TP6A, etc. show Test Points.

5. CAPACITORS

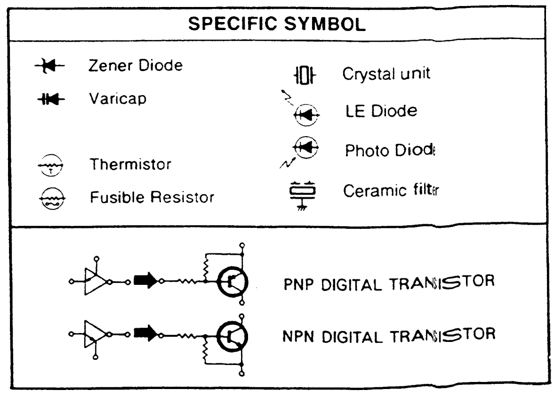
Value	Not indicated		PF, for numbers more than 1 μF, for numbers less than 1
Dielectric Strength	Not indicated :50V		
Tolerance	Not indicated =±10% : No Tolerance is indicated for electrolytic capacitors and ±20% G = ±2% P = +100% −0% Q = +30% −10% C = ±0.25PF J = ±5% D = ±0.5PF K = ±10% Z = +80% −20% T = +200% −0% F = ±1PF M= ±20% G = ±2PF		
Sort	I	Parts except for chips	Not indicated : Ceramic capacitor (MF) : Polyester capacitor (PP) : Polypropylene film capacitor (ALM) : Aluminus electrolytic capacitor (TF) : Twin film capacitor (SC) : Semiconductor ceramic capacitor (MP) : Metalized paper (MPP) : Metalized plastic film capacitor (MMF) : Metalized polyester capacitor (MF.PP) : Polyester polypropylene film capacitor (PS) : Styrol capacitor (TAN) or (TANT) : Tantalum capacitor —⫞— : Electrolytic capacitor (BP) or (NP) : Non polarized electrolytic capacitor
	II	Chips	Not indicated : Ceramic capacitor chip —⫞— : Electrolytic capacitor (BP) or (NP) : Non polarized electrolytic capacitor chip
Characteristic (only ceramic capacitor)	Not indicated : F or B(high dielectric percentage) CH,SL,etc. : Temperature compensating types		

6. Resistors

Value	Not indicated = Ω K = kΩ(1000Ω) M = MΩ(1000kΩ)		
Wattage	Parts except for chips		Not indicated = 1/4W or 1/6W
	Chips		Not indicated = 1/10W
Tolerance	Not indicated =±5% D = ±0.5% J = ±5% F = ±1% K=±10%		
Short	I	Parts except for chips	Not indicated : Carbon resistor (S) : Fixed composition resistor (MB) : Metal oxide film resistor(type B) (CE) : Cemented resister (W) : Wire wound resister (M) : Metal film resister (MPC) : Metal plate cement resister (ML) : Metal liner resister
	II	Chip	Not indicated : Chip resistor

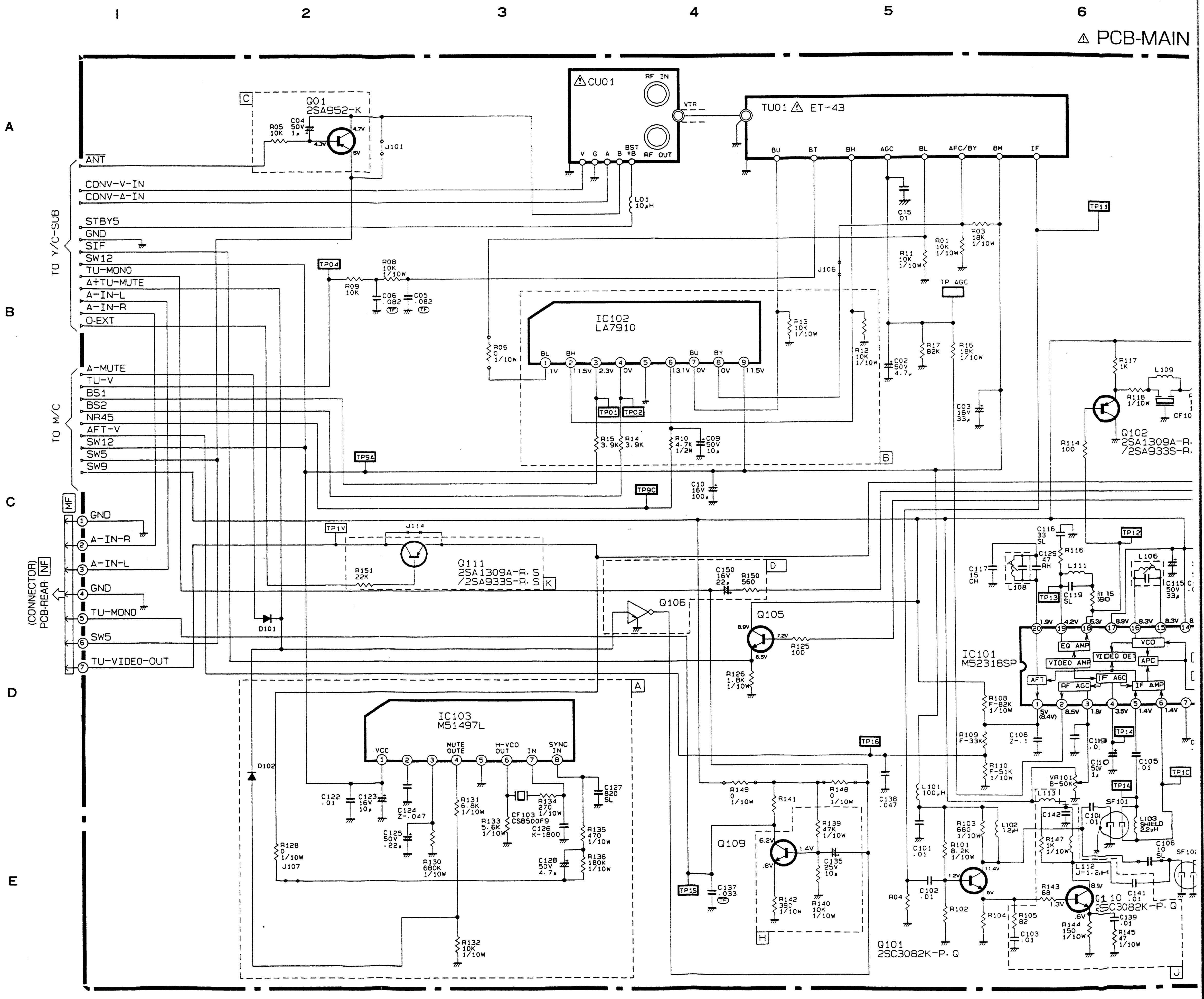
7. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement.

SPECIFIC SYMBOL


Zener Diode
Varicap
Thermistor
Fusible Resistor
Crystal unit
LE Diode
Photo Diode
Ceramic filter
PNP DIGITAL TRANSISTOR
NPN DIGITAL TRANSISTOR

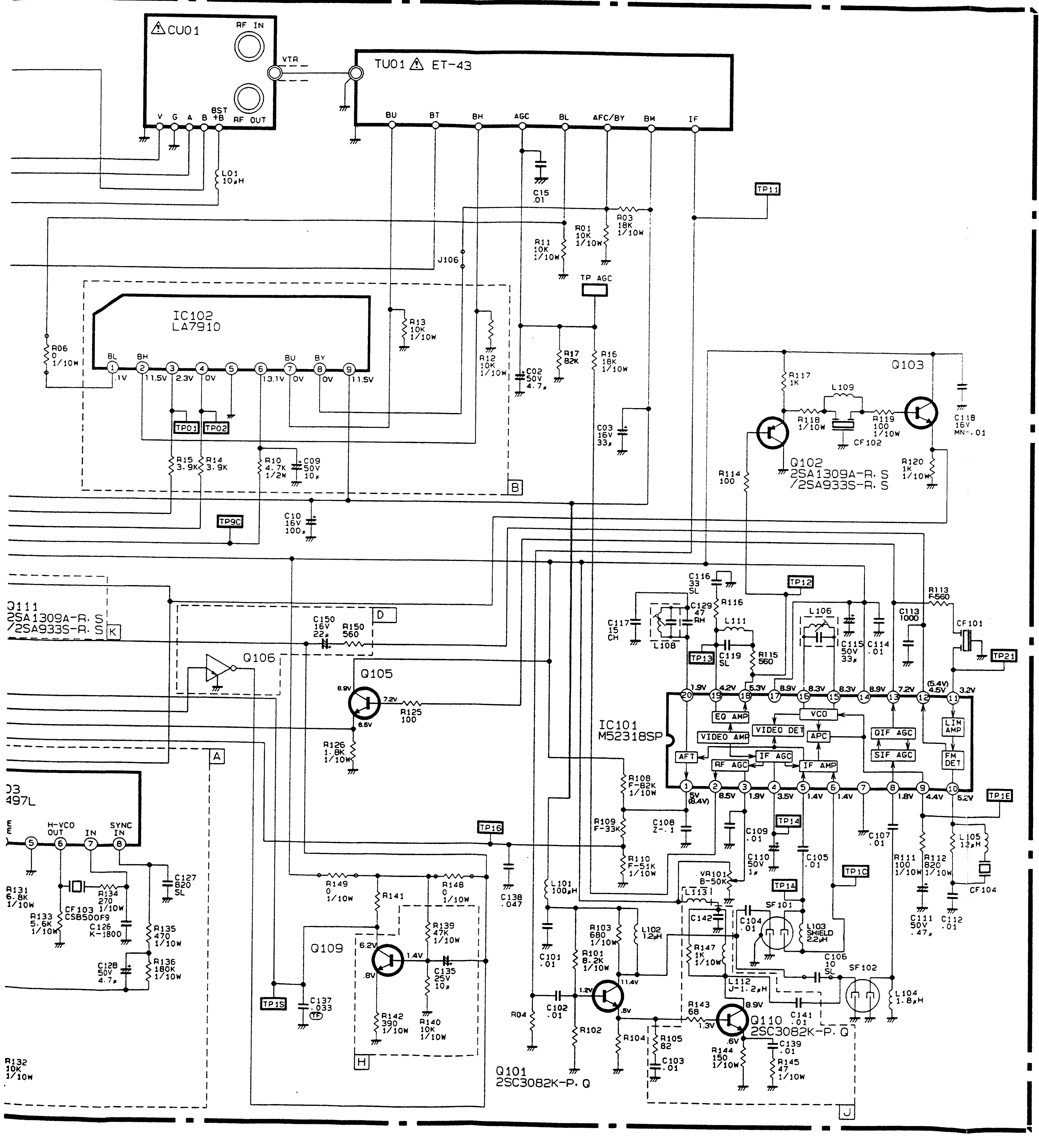
HS-M50V(ED)/V(G)
HS-M60V(ED)/V(G)

①

⚠ PCB-MAIN
1
2
3
4
5
6
A
B
C
D
E
TO Y/C-SUB
ANT
CONV-V-IN
CONV-A-IN
STBY5
GND
SIF
SW12
TU-MONO
A+TU-MUTE
A-IN-L
A-IN-R
O-EXT
TO M/C
A-MUTE
TU-V
BS1
BS2
NR45
AFT-V
SW12
SW5
SW9
(CONNECTOR) PCB-REAR NF
MF
GND
A-IN-R
A-IN-L
GND
TU-MONO
SW5
TU-VIDEO-OUT
Q01 2SA952-K
R05 10K
C04 50V 1μ
J101
⚠CU01
RF IN
RF OUT
VTR
V G A B BST +B
L01 10μH
TU01 ⚠ ET-43
BU BT BH AGC BL AFC/BY BM IF
C15 .01
R01 10K 1/10W
R03 18K 1/10W
R11 10K 1/10W
TP11
TP04
R08 10K 1/10W
R09 10K
C06 .082
C05 .082
J106
TP AGC
IC102 LA7910
R06 0 1/10W
R13 10K 1/10W
R12 10K 1/10W
C02 50V 4.7μ
R17 82K
R16 18K 1/10W
C03 16V 33μ
TP01
TP02
R15 3.9K
R14 3.9K
R10 4.7K 1/2W
C09 50V 10μ
TP9A
TP9C
C10 16V 100μ
R117 1K
L109
R118 1/10W
CF10
Q102 2SA1309A-R /2SA933S-R
R114 100
TP1V
J114
R151 22K
Q111 2SA1309A-R, S /2SA933S-R, S
C150 16V 22μ
R150 560
Q106
Q105
R125 100
R126 1.8K 1/10W
D101
C116 33 SL
C129 47 RH
R116
TP12
L106
C117 15 CH
L111
L108
TP13
C119 SL
R115 560
C115 50V 33μ
IC101 M52318SP
EQ AMP
VIDEO AMP
VIDEO DET
VCO
APC
AFT
IF AGC
RF AGC
IF AMP
R108 F-82K 1/10W
R109 F-33K
C108 Z-.1
TP14
C105 .01
TP1C
R110 F-51K 1/10W
VR101 B-50K
L113
TP1A
SF101
L103 SHIELD 22μH
C142
C106 10 SL
IC103 M51497L
VCC MUTE OUTE H-VCO OUT IN SYNC IN
D102
C122 .01
C123 16V 10μ
C124 Z-.047
C125 50V .22μ
R128 0 1/10W
J107
R130 680K 1/10W
R131 6.8K 1/10W
R133 5.6K 1/10W
CF103 CSB500F9
R134 270 1/10W
C126 K-1800
C127 820 SL
R135 470 1/10W
C128 50V 4.7μ
R136 180K 1/10W
R132 10K 1/10W
TP16
C138 .047
R149 0 1/10W
R141
R148 0 1/10W
Q109
R139 47K 1/10W
C135 25V 10μ
TP15
C137 .033
R142 390 1/10W
R140 10K 1/10W
L101 100μH
R103 680 1/10W
L102 12μH
R101 8.2K 1/10W
C101 .01
C102 .01
R04
R102
R104
R105 82
C103 .01
R147 1K 1/10W
L112 J-1.2μH
R143 68
Q110 2SC3082K-P, Q
C141 .01
C139 .01
R144 150 1/10W
R145 47 1/10W
Q101 2SC3082K-P, Q
A B C D H J K

3
4
5
6
7
8
9
10
11

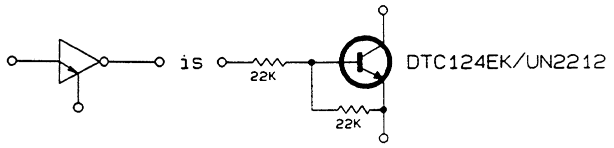
⚠ PCB-MAIN (TUNER/VIF)


⚠CU01
RF IN
VTR
RF OUT
V G A B BST +B
TU01 ⚠ ET-43
BU BT BH AGC BL AFC/BY BM IF
L01 10μH
C15 .01
R01 10K 1/10W
R03 18K 1/10W
R11 10K 1/10W
J106
TP11
TP AGC
IC102 LA7910
BL BH BU BY
R13 10K 1/10W
R12 10K 1/10W
C02 50V 4.7μ
R17 82K
R16 18K 1/10W
R06 0 1/10W
TP01 TP02
R15 3.9K
R14 3.9K
R10 4.7K 1/2W
C09 50V 10μ
C03 16V 33μ
C10 16V 100μ
TP9C
Q103
Q102 2SA1309A-R.S /2SA933S-R.S
R117 1K
L109
R118 1/10W
R119 100 1/10W
CF102
C118 16V MN-.01
R114 100
R120 1K 1/10W
Q111 2SA1309A-R.S /2SA933S-R.S
K
D
C150 16V 22μ
R150 560
Q106
Q105
R125 100
R126 1.8K 1/10W
A
C116 33 SL
C129 47 RH
R116
L111
C117 15 CH
L108
TP12
TP13
C119 SL
R115 560
L106
C115 50V 33μ
C114 .01
C113 1000
R113 F-560
CF101
TP21
IC101 M52318SP
EQ AMP
VIDEO DET
VCO
VIDEO AMP
APC
QIF AGC
SIF AGC
LIM AMP
FM DET
AFT
IF AGC
RF AGC
IF AMP
TP1E
R108 F-82K 1/10W
R109 F-33K
C108 Z-.1
R110 F-51K 1/10W
C109 .01
TP14
C110 50V 1μ
C105 .01
C107 .01
R111 100 1/10W
R112 820 1/10W
L105 12μH
CF104
TP1C
C111 50V .47μ
C112 .01
TP16
C138 .047
VR101 B-50K
L113
TP1A
SF101
C142
C104 .01
L103 SHIELD 2.2μH
R147 1K 1/10W
L112 J-1.2μH
C106 10 SL
SF102
L104 1.8μH
Q110 2SC3082K-P.Q
C141 .01
R143 68
C139 .01
R144 150 1/10W
R145 47 1/10W
R105 82
C103 .01
J
L101 100μH
R103 680 1/10W
L102 1.2μH
R101 8.2K 1/10W
C101 .01
C102 .01
R04
R102
R104
Q101 2SC3082K-P.Q
R149 0 1/10W
R141
R148 0 1/10W
R139 47K 1/10W
C135 25V 10μ
Q109
R142 390 1/10W
R140 10K 1/10W
H
TP15
C137 .033
03
497L
H-VCO OUT
IN
SYNC IN
C127 820 SL
R131 6.8K 1/10W
R134 270 1/10W
CF103 CSB500F9
R133 5.6K 1/10W
C126 K-1800
R135 470 1/10W
C128 50V 4.7μ
R136 180K 1/10W
R132 10K 1/10W

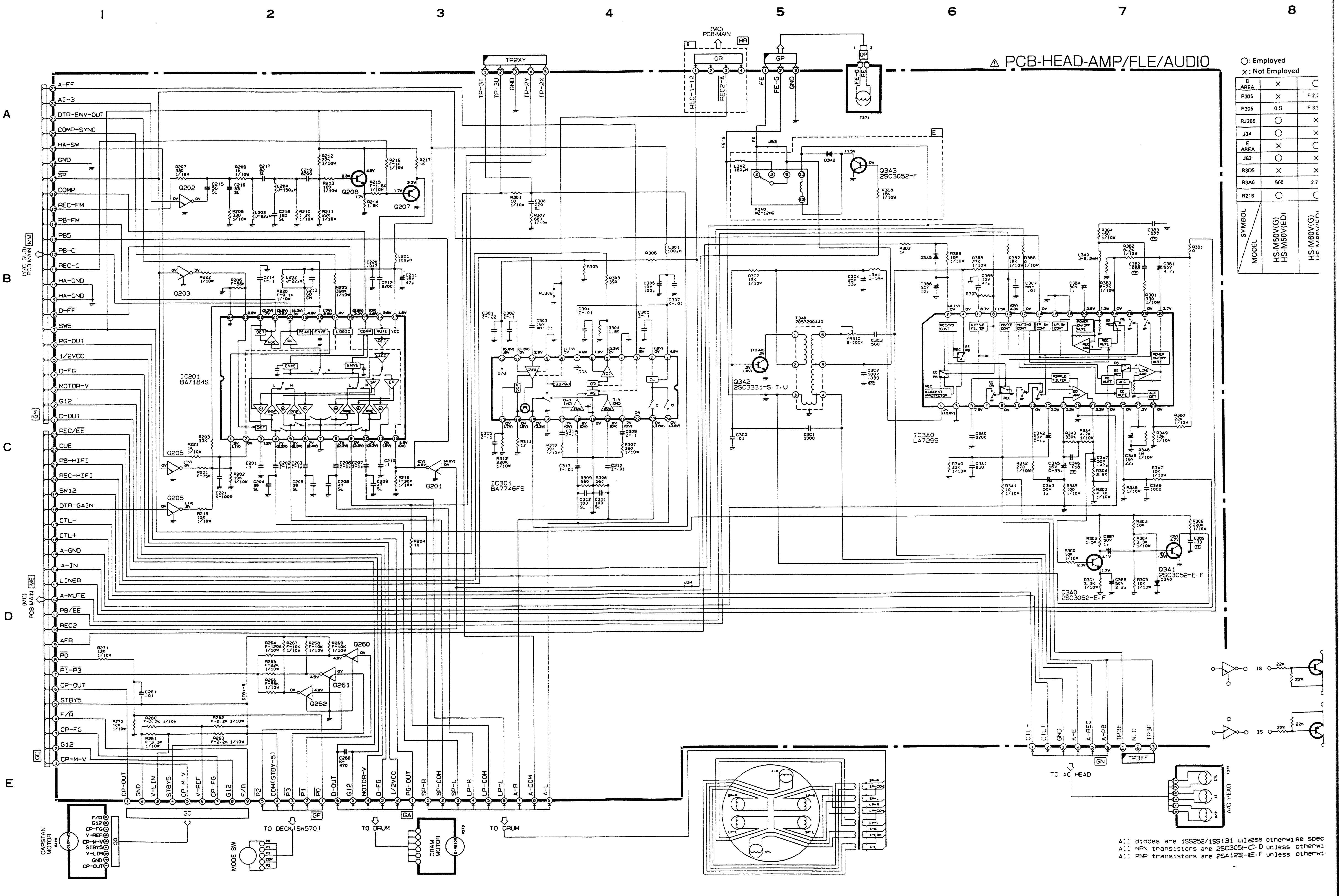
○ : Employd × : Not Employd

MODEL / SYMBOL	(ED)	(G)
A AREA	○	○
B AREA	○	○
C AREA	×	×
D AREA	○	○
R 102	1.8K 1/10W	1K 1/10W
R 104	220 1/10W	68 1/10W
C106	×	○
R04	×	82 1/10W
L109	J-5.6μH	J-5.6μH
L111	J-27μH	J-22μH
R118	F-120	F-100
R06	○	○
D101	○	○
J101	○	○
R141	470 1/10W	1.5K 1/10W
R149	×	○
H AREA	×	○
J AREA	○	×
R148	○	×
C116	×	18P
R116	×	0Ω
C119	33	39
R102	1.8K	1K
R104	220	68
K AREA	×	○
J114	○	×
C137	×	○

ALL NPN TRANSISTORS ARE 2SC3053-C.D UNLESS OTHERWISE SPECIFIED
ALL PNP TRANSISTORS ARE 2SA1235-E.F UNLESS OTHERWISE SPECIFIED
ALL DIODES ARE 1SS252/1SS131 UNLESS OTHERWISE SPECIFIED


is
22K
22K
DTC124EK/UN2212

△ PCB-HEAD-AMP/FLE/AUDIO

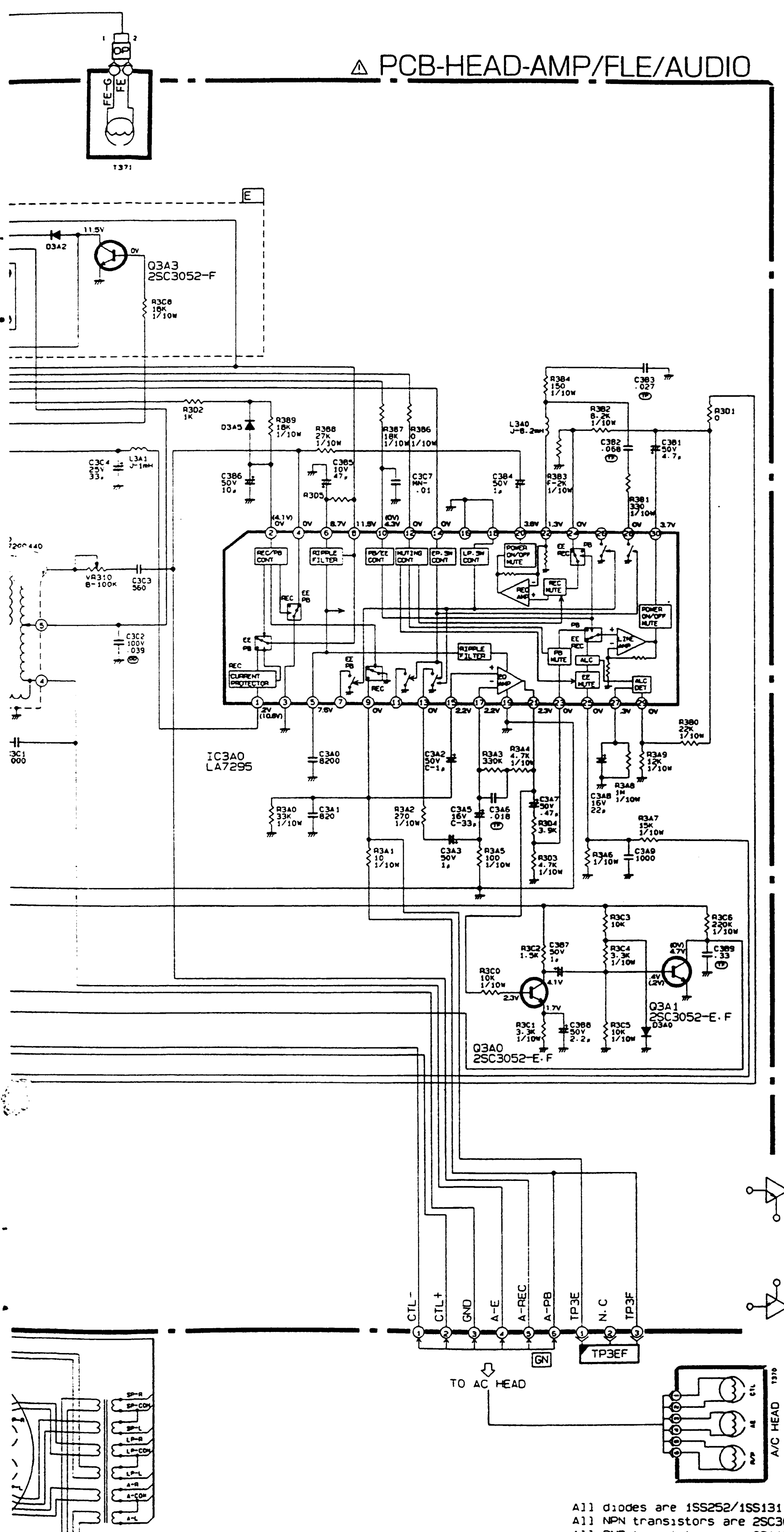

1
2
3
4
5
6
7
8
A
B
C
D
E
TP2XY
TP-3T
TP-3U
GND
TP-2Y
TP-2X
(MC) PCB-MAIN
MR
GR
REC-1-12
REC2-A
GP
FE
FE-G
QP
T371
A-FF
AI-3
DTR-ENV-OUT
COMP-SYNC
HA-SW
SP
COMP
REC-FM
PB-FM
PBS
PB-C
REC-C
HA-GND
D-FF
SW5
PG-OUT
1/2VCC
D-FG
MOTOR-V
G12
D-OUT
REC/EE
CUE
PB-HIFI
REC-HIFI
SW12
DTR-GAIN
CTL-
CTL+
A-GND
A-IN
LINER
A-MUTE
PB/EE
REC2
AFR
P0
P1-P3
CP-OUT
STBY5
F/R
CP-FG
CP-M-V
(Y/C SUB) PCB-MAIN
MM
GM
(MC) PCB-MAIN
ME
GE
Q202
Q203
Q205
Q206
Q207
Q208
Q201
IC201 BA7184S
IC301 BA7746FS
Q3A3 2SC3052-F
Q3A2 2SC3331-S·T·U
T3A0 7057200440
IC3A0 LA7295
Q3A0 2SC3052-E·F
Q3A1 2SC3052-E·F
K3A0
J63
J34
D342
D345
D3A0
Q260
Q261
Q262
TO DECK(SW5701)
TO DRUM
TO AC HEAD
GC
GF
GA
GN
TP3EF
CAPSTAN MOTOR
MODE SW
DRAM MOTOR
A/C HEAD
CTL-
CTL+
GND
A-E
A-REC
A-PB
TP3E
N.C
TP3F

○: Employed
×: Not Employed

SYMBOL / MODEL	HS-M50V(G) HS-M50V(ED)	HS-M60V(G)
B AREA	×	○
R305	×	F-2.2
R306	0 Ω	F-3.9
RJ306	○	×
J34	○	×
E AREA	×	○
J63	○	×
R3D5	×	×
R3A6	560	2.7
R218	○	○

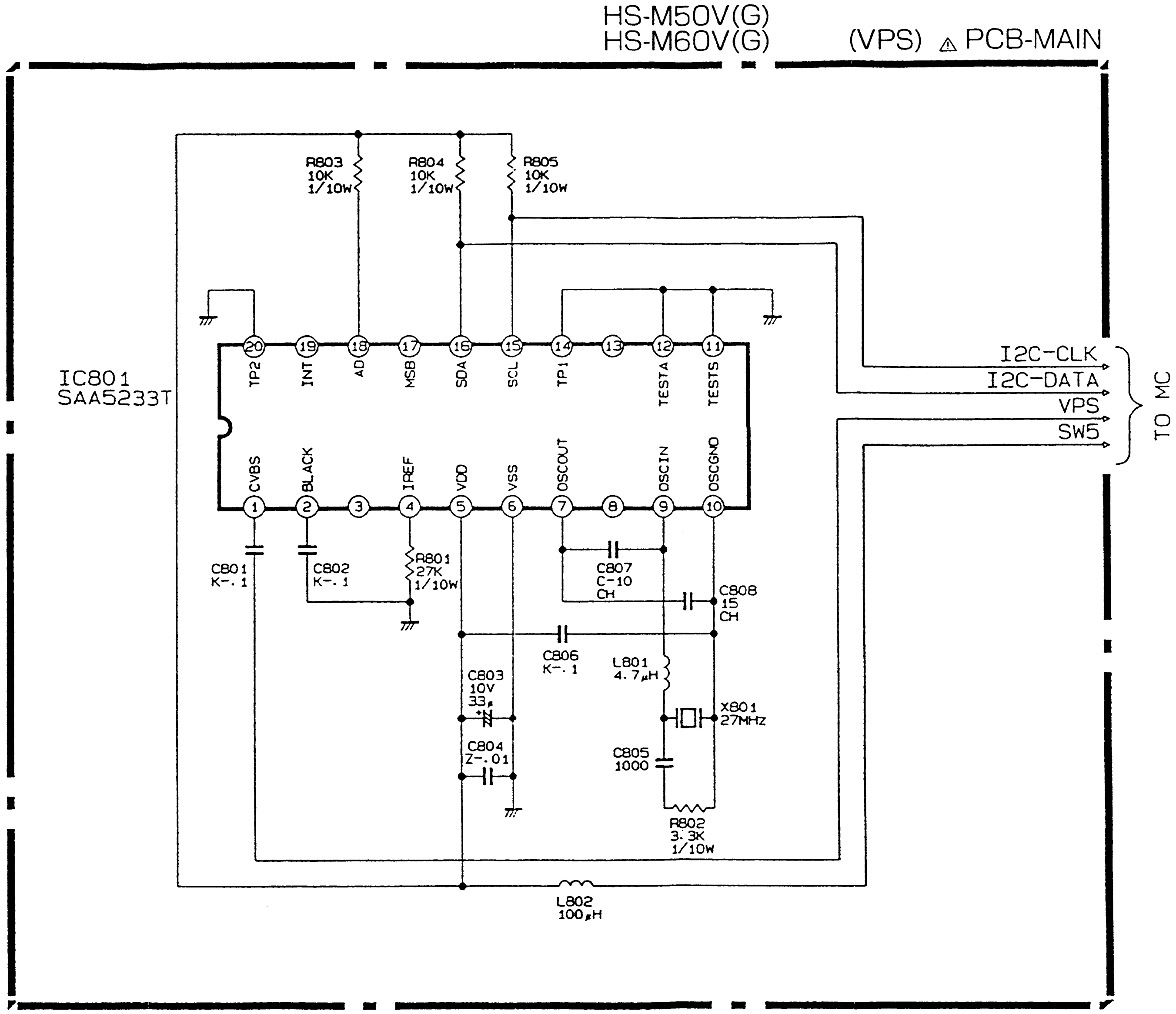
All diodes are 1SS252/1SS131 unless otherwise spec
All NPN transistors are 2SC3052-C·D unless otherwi
All PNP transistors are 2SA1235-E·F unless otherwi

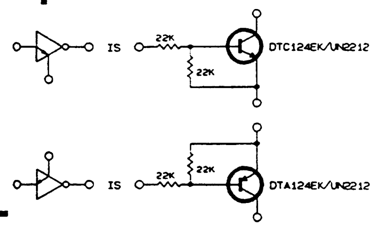
6 7 8 9 10 11 12 13


⚠ PCB-HEAD-AMP/FLE/AUDIO
Q3A3
2SC3052-F
IC3A0
LA7295
Q3A0
2SC3052-E·F
Q3A1
2SC3052-E·F
CTL-
CTL+
GND
A-E
A-REC
A-PB
TP3E
N.C
TP3F
GN
TP3EF
TO AC HEAD
A/C HEAD
T371

○: Employed
×: Not Employed

SYMBOL / MODEL	HS-M50V(G) HS-M50V(ED)	HS-M60V(G) HS-M60V(ED)
B AREA	×	○
R305	×	F-2.2K
R306	0 Ω	F-3.9K
RJ306	○	×
J34	○	×
E AREA	×	○
J63	○	×
R3D5	×	×
R3A6	560	2.7K
R218	○	○

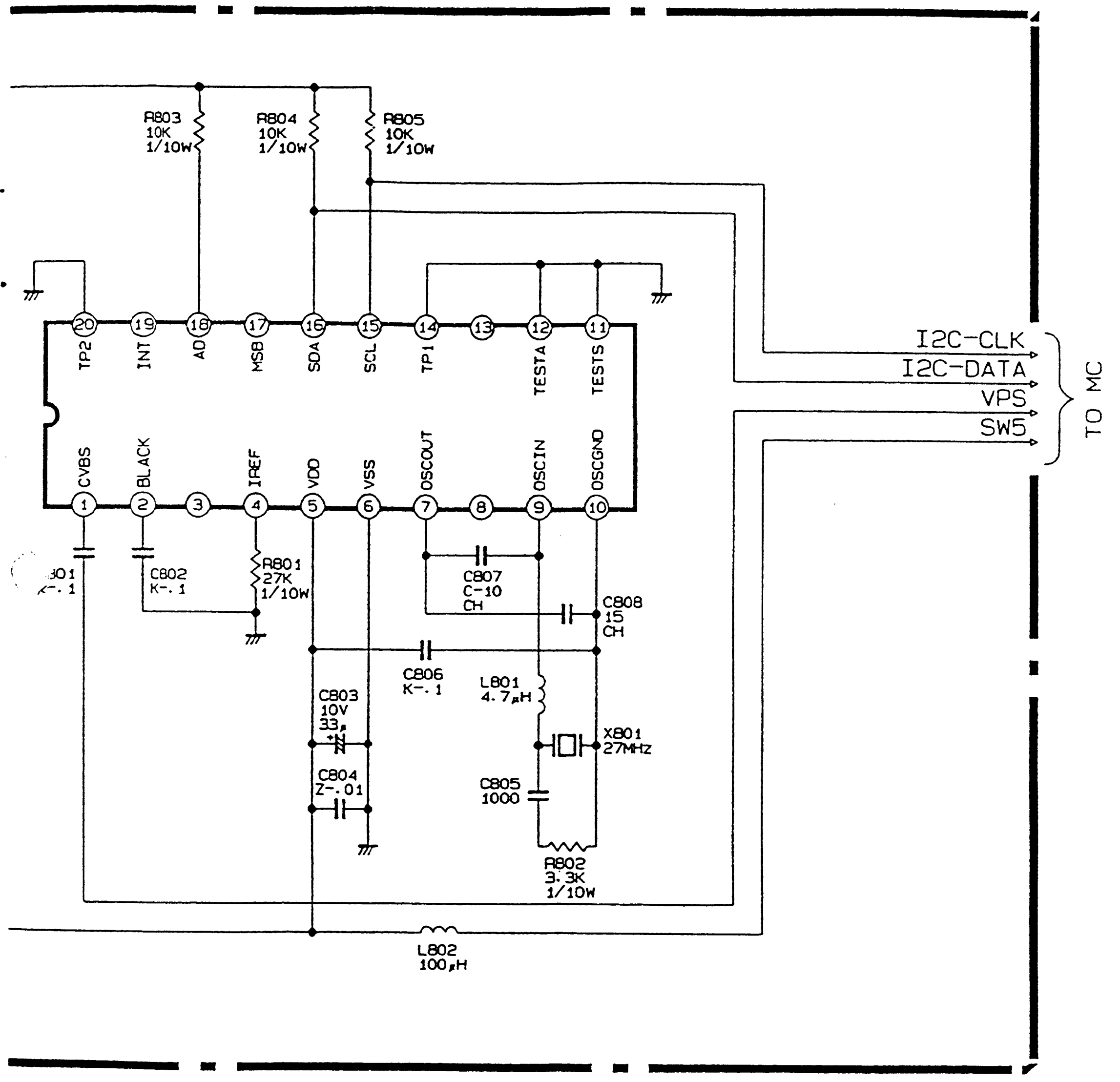

HS-M50V(G)
HS-M60V(G)
(VPS) ⚠ PCB-MAIN
IC801
SAA5233T
R803 10K 1/10W
R804 10K 1/10W
R805 10K 1/10W
TP2
INT
AD
MSB
SDA
SCL
TP1
TESTA
TESTS
CVBS
BLACK
IREF
VDD
VSS
OSCOUT
OSCIN
OSCGND
C801 K-.1
C802 K-.1
R801 27K 1/10W
C807 C-10 CH
C808 15 CH
C806 K-.1
L801 4.7μH
X801 27MHz
C803 10V 33μ
C804 Z-.01
C805 1000
R802 3.3K 1/10W
L802 100μH
I2C-CLK
I2C-DATA
VPS
SW5
TO MC


IS
22K
22K
DTC124EK/UN2212
IS
22K
22K
DTA124EK/UN2212

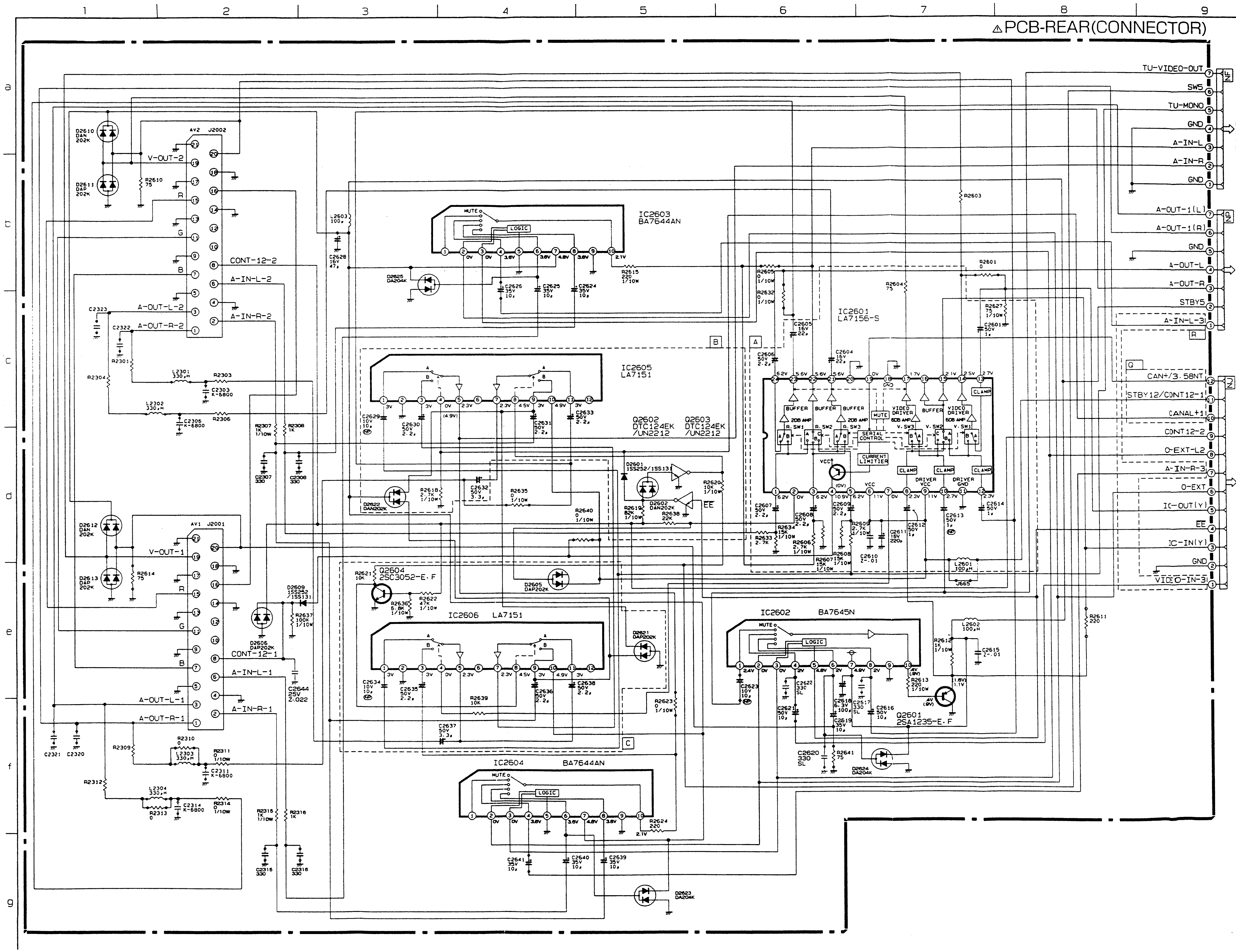
All diodes are 1SS252/1SS131 unless otherwise specified.
All NPN transistors are 2SC3053-C·D unless otherwise specified.
All PNP transistors are 2SA1235-E·F unless otherwise specified.

10 11 12 13 14 15 16 17

HS-M50V(G)
HS-M60V(G)
(VPS) ⚠ PCB-MAIN


R803
10K
1/10W
R804
10K
1/10W
R805
10K
1/10W
TP2
INT
AD
MSB
SDA
SCL
TP1
TESTA
TESTS
CVBS
BLACK
IREF
VDD
VSS
OSCOUT
OSCIN
OSCGND
20
19
18
17
16
15
14
13
12
11
1
2
3
4
5
6
7
8
9
10
I2C-CLK
I2C-DATA
VPS
SW5
TO MC
C801
K-.1
C802
K-.1
R801
27K
1/10W
C807
C-10
CH
C808
15
CH
C806
K-.1
C803
10V
33μ
C804
Z-.01
L801
4.7μH
X801
27MHz
C805
1000
R802
3.3K
1/10W
L802
100μH

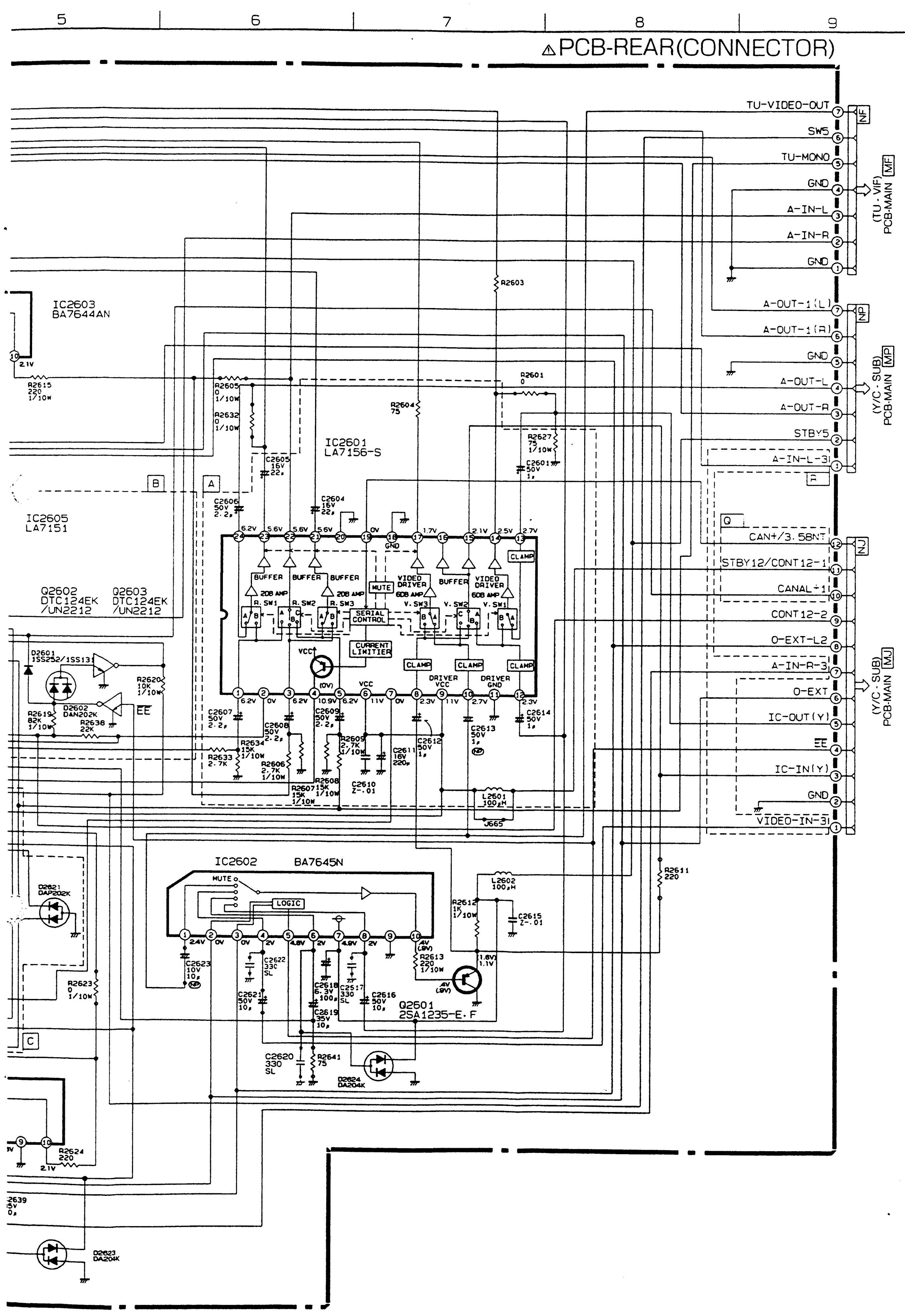
⚠PCB-REAR(CONNECTOR)


1
2
3
4
5
6
7
8
9
a
b
c
d
e
f
g
TU-VIDEO-OUT
SW5
TU-MONO
GND
A-IN-L
A-IN-R
GND
NF
MF
(TU·VIF)
PCB-MAIN
A-OUT-1(L)
A-OUT-1(R)
GND
A-OUT-L
A-OUT-R
STBY5
A-IN-L-3
NP
MP
(Y/C·SUB)
PCB-MAIN
CAN+/3.58NT
STBY12/CONT12-1
CANAL+1
CONT12-2
O-EXT-L2
A-IN-R-3
O-EXT
IC-OUT(Y)
EE
IC-IN(Y)
GND
VIDEO-IN-3
NJ
MJ
(Y/C·SUB)
PCB-MAIN
AV2 J2002
V-OUT-2
CONT-12-2
A-IN-L-2
A-OUT-L-2
A-OUT-R-2
A-IN-R-2
AV1 J2001
V-OUT-1
CONT-12-1
A-IN-L-1
A-OUT-L-1
A-OUT-R-1
A-IN-R-1
R
G
B
D2610 DAN202K
D2611 DAP202K
D2612 DAN202K
D2613 DAP202K
R2610 75
R2614 75
IC2603 BA7644AN
IC2604 BA7644AN
MUTE
LOGIC
IC2605 LA7151
IC2606 LA7151
IC2601 LA7156-S
IC2602 BA7645N
Q2602 DTC124EK /UN2212
Q2603 DTC124EK /UN2212
Q2604 2SC3052-E·F
Q2601 2SA1235-E·F
D2601 1SS252/1SS131
D2602 DAN202K
D2605 DAP202K
D2606 DAP202K
D2609 1SS252 /1SS131
D2621 DAP202K
D2622 DAN202K
D2623 DA204K
D2624 DA204K
D2625 DA204K
L2603 100μ
L2601 100μ
L2602 100μ
J665
L2301 330μH
L2302 330μH
L2303 330μH
L2304 330μH
BUFFER
20B AMP
VIDEO DRIVER
6dB AMP
SERIAL CONTROL
CURRENT LIMITIER
CLAMP
DRIVER VCC
DRIVER GND
VCC
R.SW1
R.SW2
R.SW3
V.SW1
V.SW2
V.SW3
EE
A
B
C
Q
R

HS-M50V(ED)/V(G)
HS-M60V(ED)/V(G)

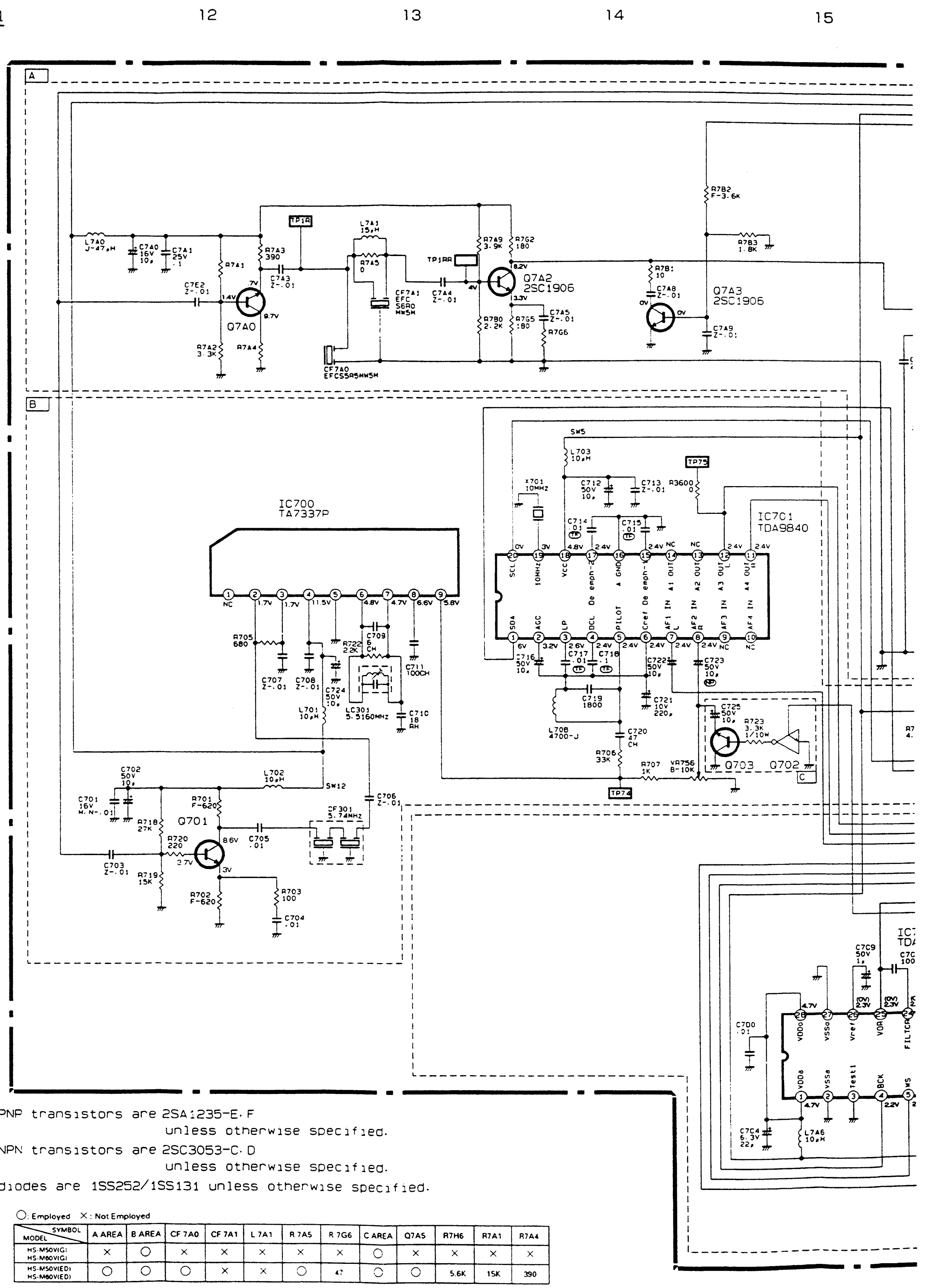
④

⚠PCB-REAR(CONNECTOR)


5
6
7
8
9
TU-VIDEO-OUT
SW5
TU-MONO
GND
A-IN-L
A-IN-R
GND
NF
(TU・VIF)
PCB-MAIN MF
A-OUT-1(L)
A-OUT-1(R)
GND
A-OUT-L
A-OUT-R
STBY5
A-IN-L-3
NP
(Y/C・SUB)
PCB-MAIN MP
CAN+/3.58NT
STBY12/CONT12-1
CANAL-1
CONT12-2
O-EXT-L2
A-IN-R-3
O-EXT
IC-OUT(Y)
EE
IC-IN(Y)
GND
VIDEO-IN-3
NJ
(Y/C・SUB)
PCB-MAIN MJ
IC2603
BA7644AN
IC2601
LA7156-S
IC2605
LA7151
Q2602
DTC124EK
/UN2212
Q2603
DTC124EK
/UN2212
D2601
1SS252/1SS131
D2602
DAN202K
IC2602
BA7645N
MUTE
LOGIC
Q2601
2SA1235-E.F
D2621
DAP202K
D2623
DA204K
D2624
DA204K
BUFFER
208 AMP
R.SW1
R.SW2
R.SW3
MUTE
VIDEO DRIVER
6dB AMP
SERIAL CONTROL
CURRENT LIMITIER
CLAMP
DRIVER
VCC
GND
V.SW1
V.SW2
V.SW3
L2601
100μH
L2602
100μH
J665
R2603
R2601
R2604
75
R2605
R2632
R2611
220
R2612
1K
R2613
220
R2615
220
R2620
10K
R2623
R2624
220
R2627
75
R2633
2.7K
R2606
2.7K
R2607
15K
R2608
R2609
2.7K
R2638
22K
R2619
82K
R2634
15K
R2640
R2641
75
C2601
C2604
C2605
C2606
C2607
C2608
C2609
C2610
C2611
C2612
C2613
C2614
C2615
C2616
C2617
C2618
C2619
C2620
330
C2621
C2622
C2623
C2639
A
B
C

	MODEL NAME	M60V(G)	M60V(ED)	M50V(G)	M50V(ED)
PEF.NO.	ADDRESS				
A AREA	c-6	○	×	○	×
B AREA	c-5	○	×	○	×
C AREA	e-5	○	×	○	×
R2603	b-7	75	0	75	0
R2601	b-8	×	○	×	○
R2605	b-6	×	○	×	○
R2632	c-6	×	○	×	○
C2623	e-6	×	○	×	○
C2622	e-6	○	×	×	×
C2620	e-6	○	×	○	×
C2617	e-7	○	×	○	×
R2635	d-4	×	○	×	○
R2611	e-8	×	○	×	○
R2301	c-1	470 1/10W	×	470 1/10W	×
L2301	c-2	○	×	○	×
C2303	c-2	○	×	○	×
R2303	c-2	0 1/10W	×	0 1/10W	×
R2304	c-1	470 1/10W	×	470 1/10W	×
L2302	d-1	○	×	○	×
C2306	d-2	○	×	○	×
R2306	d-2	0 1/10W	×	0 1/10W	×
R2307	d-2	1.5K 1/10W	1K 1/10W	1.5K 1/10W	1K 1/10W
C2307	d-2	K-390	K-330	K-390	K-330
R2308	d-3	1.2K	1K	1.2K	1K
C2308	d-3	K-470	K-330	K-470	K-330
R2309	f-1	470 1/10W	0 1/10W	470 1/10W	0 1/10W
R2310	f-2	×	○	×	○
L2303	f-2	○	×	○	×
C2311	f-2	○	×	○	×
R2312	f-1	470 1/10W	0 1/10W	470 1/10W	0 1/10W
R2313	g-2	×	○	×	○
L2304	g-2	○	×	○	×
C2314	g-2	○	×	○	×
R2315	g-3	2.7K 1/10W	1K 1/10W	2.7K 1/10W	1K 1/10W
C2315	g-3	K-220	K-330	K-220	K-330
R2316	g-3	2.7K	1K	2.7K	1K
C2316	g-3	K-220	K-330	K-220	K-330
J665	e-7	×	○	×	○
R2640	d-4	×	○	×	○
R2623	f-5	×	○	×	○
Q AREA	c-9	○	×	○	×
R AREA	c-9	○	○	×	×
C2621	f-6	○	○	×	×
C2626	c-4	○	○	×	×
C2641	g-4	○	○	×	×
R2614	e-1	×	○	×	○
R2641	f-6	○	×	○	×
C2320	f-1	1800P	×	1800P	×
C2321	f-1	1800P	×	1800P	×
C2322	c-1	1800P	×	1800P	×
C2323	c-1	1800P	×	1800P	×

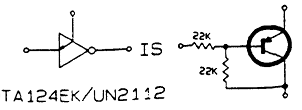
○ : Employed × : Not Employed


10
11
12
13
14
15
A
B
C
TP1A
TP1AA
TP75
TP74
L7A0
J-47μH
C7A0
16V 10μ
C7A1
25V .1
R7A1
R7A3
390
C7A3
Z-.01
C7E2
Z-.01
Q7A0
R7A2
3.3K
R7A4
L7A1
15μH
R7A5
0
CF7A1
EFC S6R0 MW5M
CF7A0
EFCS6R5MW5M
C7A4
Z-.01
R7A9
3.9K
R7G2
180
Q7A2
2SC1906
R7B0
2.2K
R7G5
180
C7A5
Z-.01
R7G6
R7B1
10
C7A8
Z-.01
R7B2
F-3.6K
R7B3
1.8K
Q7A3
2SC1906
C7A9
Z-.01
IC700
TA7337P
R705
680
C707
Z-.01
C708
Z-.01
R722
2.2K
C709
C724
50V 10μ
C711
100CH
L701
10μH
LC301
5.5160MHz
C710
18 RH
IC701
TDA9840
SW5
L703
10μH
X701
10MHz
C712
50V 10μ
C713
Z-.01
R3600
0
C714
C715
C716
50V 10μ
C717
C718
C719
1800
L708
4700-J
C720
47 CH
C721
10V 220μ
C722
50V 10μ
C723
50V 10μ
C725
50V 1μ
R723
3.3K 1/10W
R706
33K
R707
1K
VR756
B-10K
Q703
Q702
C701
16V M.N-.01
C702
50V 10μ
L702
10μH
SW12
C706
Z-.01
R718
27K
R701
F-620
Q701
R720
220
C705
.01
CF301
5.74MHz
C703
Z-.01
R719
15K
R702
F-620
R703
100
C704
.01
C700
.01
C7C9
50V 1μ
C7C4
6.3V 22μ
L7A6
10μH
VDDa
VSSa
VDDd
VSSd
Vref
Testi
BCK
FILTC
SCL
SDA
AGC
VCC
GND
PILOT

All PNP transistors are 2SA1235-E.F
unless otherwise specified.
All NPN transistors are 2SC3053-C.D
unless otherwise specified.
All diodes are 1SS252/1SS131 unless otherwise specified.

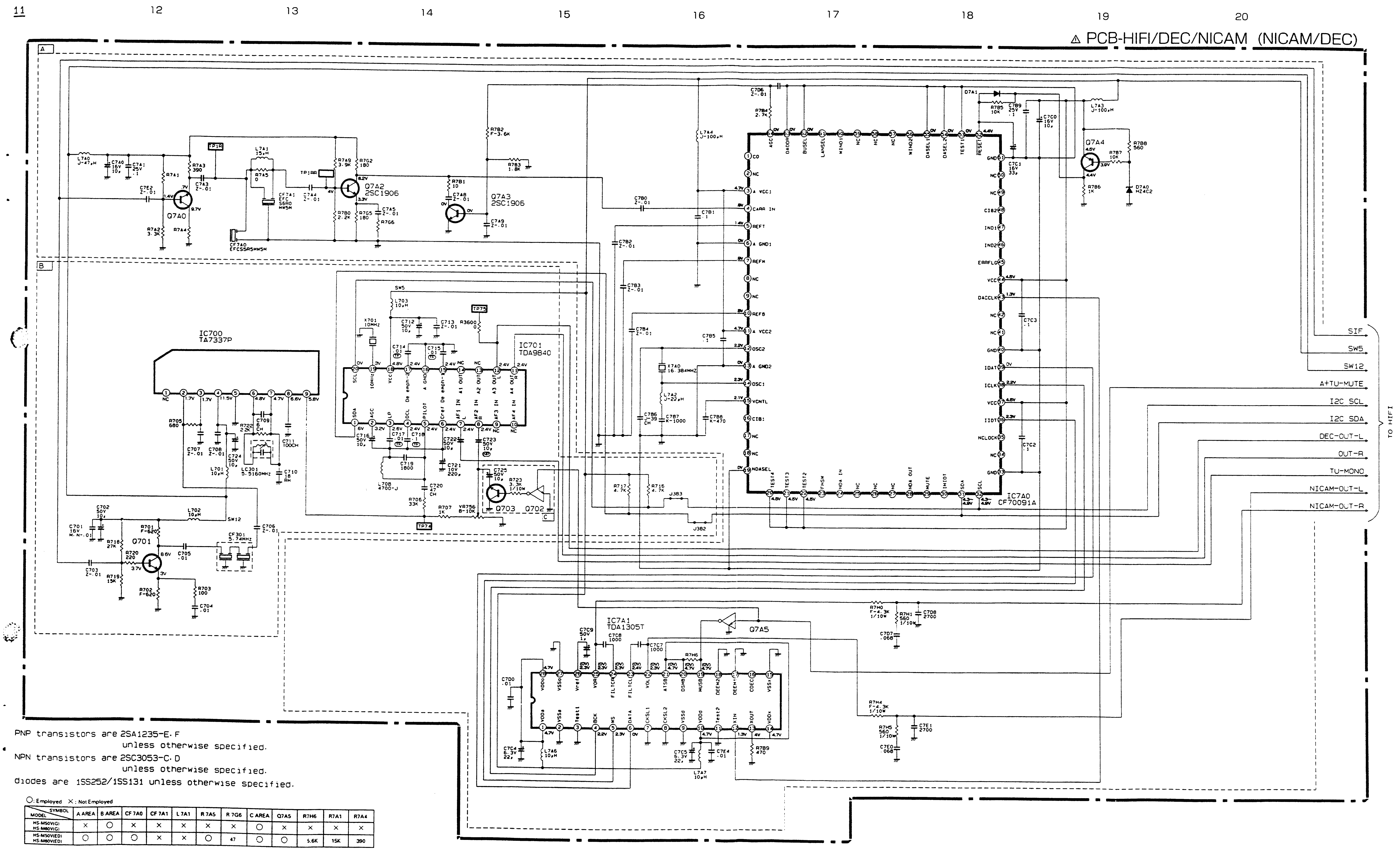
○: Employed ×: Not Employed

SYMBOL / MODEL	A AREA	B AREA	CF 7A0	CF 7A1	L 7A1	R 7A5	R 7G6	C AREA	Q7A5	R7H6	R7A1	R7A4
HS-M50V(G) HS-M60V(G)	×	○	×	×	×	×	×	○	×	×	×	×
HS-M50V(ED) HS-M60V(ED)	○	○	○	×	×	○	47	○	○	5.6K	15K	390



DTA124EK/UN2112

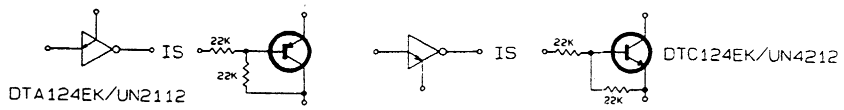
⚠ PCB-HIFI/DEC/NICAM (NICAM/DEC)


11
12
13
14
15
16
17
18
19
20
A
B
C
IC700
TA7337P
IC701
TDA9840
IC7A0
CF70091A
IC7A1
TDA1305T
Q7A0
Q7A2
2SC1906
Q7A3
2SC1906
Q7A4
Q7A5
Q701
Q702
Q703
X701
10MHz
X7A0
16.384MHZ
CF7A0
EFCS5R5MW5M
CF301
5.74MHz
LC301
5.5160MHz
TP1A
TP1AA
TP74
TP75
D7A0
HZ4C2
D7A1
SW5
SW12
J382
J383
SIF
SW5
SW12
A+TU-MUTE
I2C SCL
I2C SDA
DEC-OUT-L
OUT-R
TU-MONO
NICAM-OUT-L
NICAM-OUT-R
TO HIFI

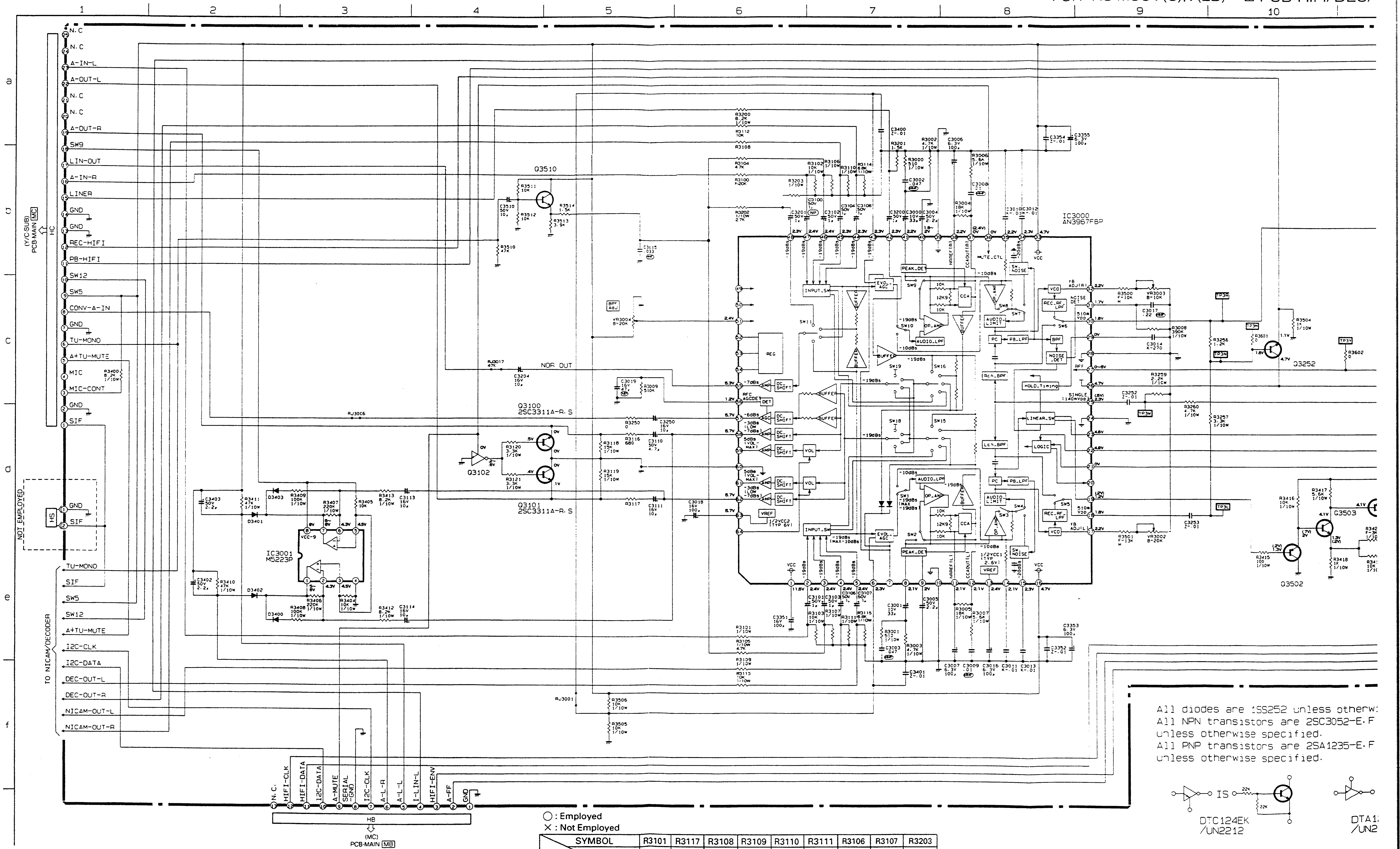
PNP transistors are 2SA1235-E·F
unless otherwise specified.
NPN transistors are 2SC3053-C·D
unless otherwise specified.
Diodes are 1SS252/1SS131 unless otherwise specified.

○: Employed ×: Not Employed

MODEL \ SYMBOL	A AREA	B AREA	CF 7A0	CF 7A1	L 7A1	R 7A5	R 7G6	C AREA	Q7A5	R7H6	R7A1	R7A4
HS-M50V(G) HS-M60V(G)	×	○	×	×	×	×	×	○	×	×	×	×
HS-M50V(ED) HS-M60V(ED)	○	○	○	×	×	○	47	○	○	5.6K	15K	390


IS
22K
22K
DTA124EK/UN2112
IS
22K
22K
DTC124EK/UN4212

FOR HS-M50V(G),V(ED) ⚠ PCB-HIFI/DEC/



1
2
3
4
5
6
7
8
9
10
a
b
c
d
e
f
N.C
N.C
A-IN-L
A-OUT-L
N.C
N.C
A-OUT-R
SW9
LIN-OUT
A-IN-R
LINER
GND
GND
REC-HIFI
PB-HIFI
SW12
SW5
CONV-A-IN
GND
TU-MONO
A+TU-MUTE
MIC
MIC-CONT
GND
SIF
(Y/C-SUB)
PCB-MAIN MC
HC
NOT EMPLOYED
HS
GND
SIF
TU-MONO
SIF
SW5
SW12
A+TU-MUTE
I2C-CLK
I2C-DATA
DEC-OUT-L
DEC-OUT-R
NICAM-OUT-L
NICAM-OUT-R
TO NICAM/DECODER
N.C.
HIFI-CLK
HIFI-DATA
I2C-DATA
A-MUTE
SERIAL GND
I2C-CLK
A-L-R
A-L-L
I-LIN-L
HIFI-ENV
A-FF
GND
HB
(MC)
PCB-MAIN MB
Q3510
NOR OUT
Q3100
2SC3311A-R.S
Q3101
2SC3311A-R.S
Q3102
IC3001
M5223P
IC3000
AN3967FBP
Q3252
Q3502
Q3503
PEAK_DET
INPUT_SW
EVOL_AGC
OP_AMP
AUDIO_LPF
CCA
BUFFER
REG
DC SHIFT
VOL
VREF
AUDIO LIMIT
PC
PB_LPF
BPF
NOISE DET
Rch_BPF
Lch_BPF
HOLD_Timing
LINEAR_SW
LOGIC
REC_RF_LPF
VCO
MUTE_CTL
SW_NOISE
IS
22k
22k
DTC124EK
/UN2212
DTA1
/UN2

All diodes are 1SS252 unless otherw

All NPN transistors are 2SC3052-E･F

unless otherwise specified.

All PNP transistors are 2SA1235-E･F

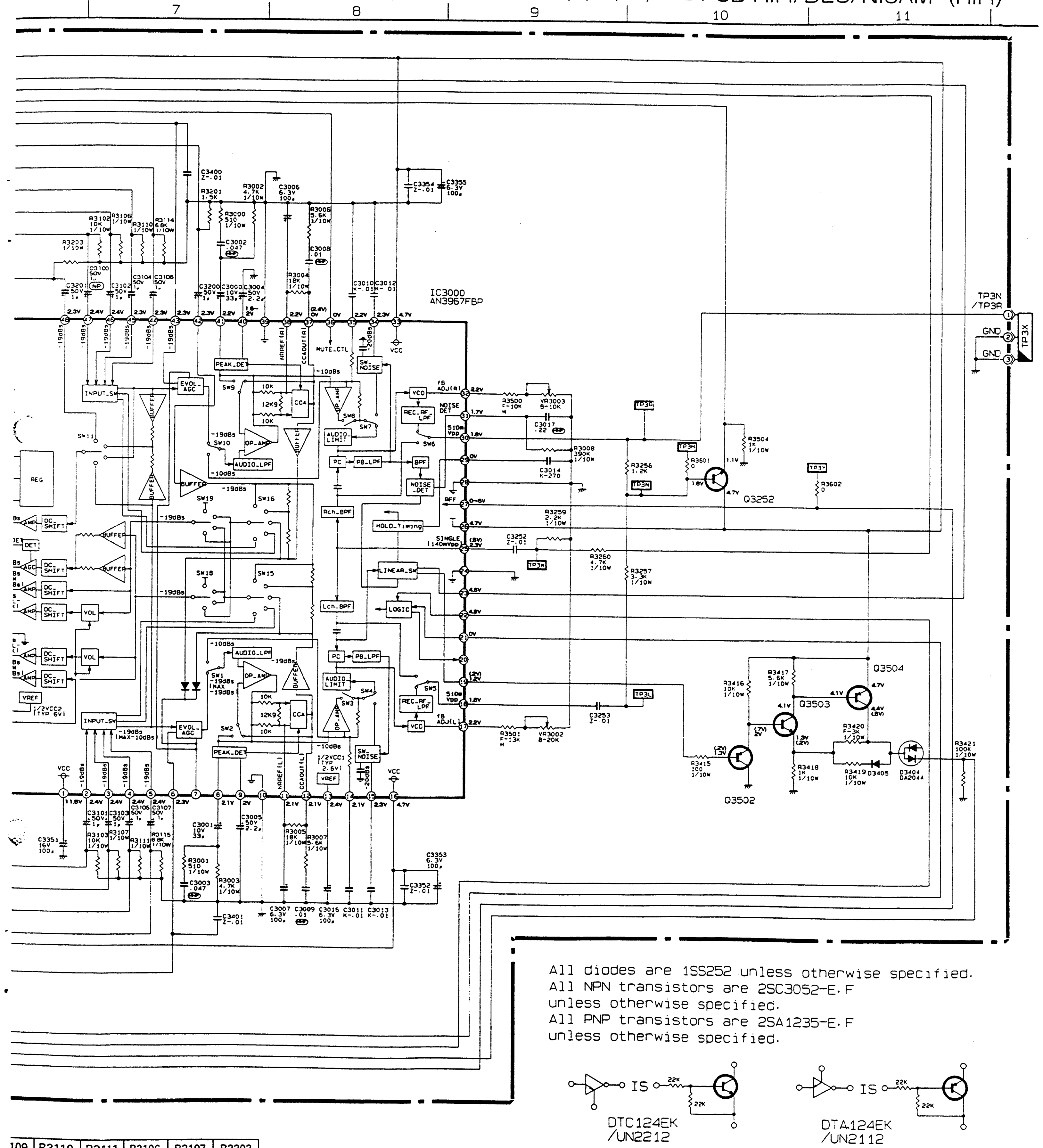
unless otherwise specified.

○ : Employed

× : Not Employed

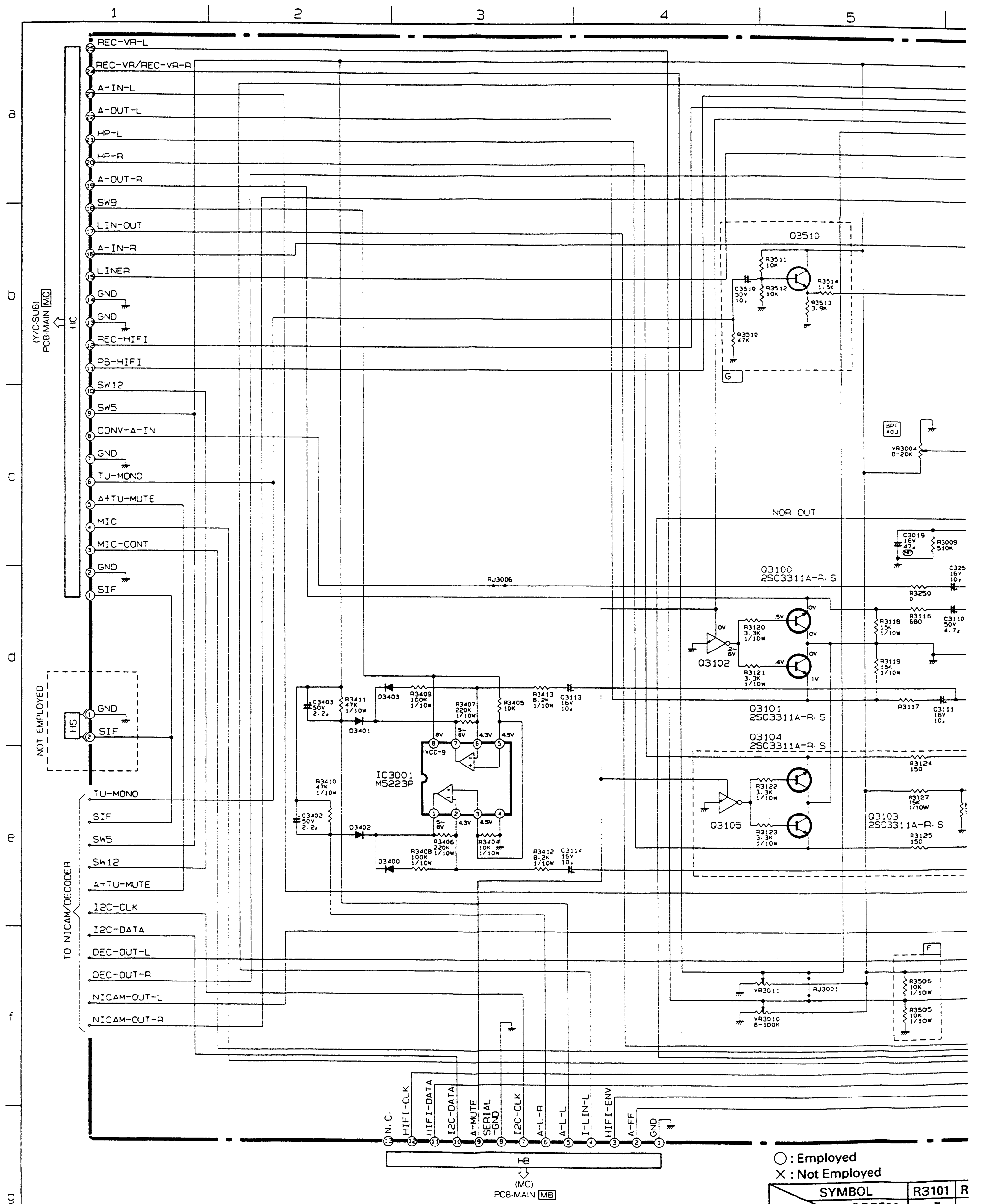
MODEL \ SYMBOL / ADDRESS	R3101	R3117	R3108	R3109	R3110	R3111	R3106	R3107	R3203
ADDRESS	e-7	d-5	b-6	e-6	b-7	e-7	b-7	e-7	b-7
HS-M50V(G)	F-13K	3.9K	0Ω	0Ω	×	×	22K	22K	22K
HS-M50V(ED)	20K	0Ω	18K	18K	39K	39K	22K	22K	22K

FOR HS-M50V(G),V(ED) △ PCB-HIFI/DEC/NICAM (HIFI)


7
8
9
10
11
IC3000
AN3967FBP
TP3N
/TP3R
TP3X
GND
GND
INPUT_SW
EVOL_AGC
PEAK_DET
AUDIO_LPF
OP_AMP
BUFFER
DC_SHIFT
VOL
VREF
REG
CCA
SW_NOISE
MUTE_CTL
VCO
REC_RF_LPF
NOISE_DET
AUDIO_LIMIT
PC
PB_LPF
BPF
Rch_BPF
Lch_BPF
HOLD_Timing
LINEAR_SW
LOGIC
VCC
Q3252
Q3502
Q3503
Q3504
D3404
DA204K
VR3003
VR3002
TP3H
TP3N
TP3Y
TP3W
TP3L
DTC124EK
/UN2212
DTA124EK
/UN2112
IS
22K

All diodes are 1SS252 unless otherwise specified.
All NPN transistors are 2SC3052-E,F
unless otherwise specified.
All PNP transistors are 2SA1235-E,F
unless otherwise specified.

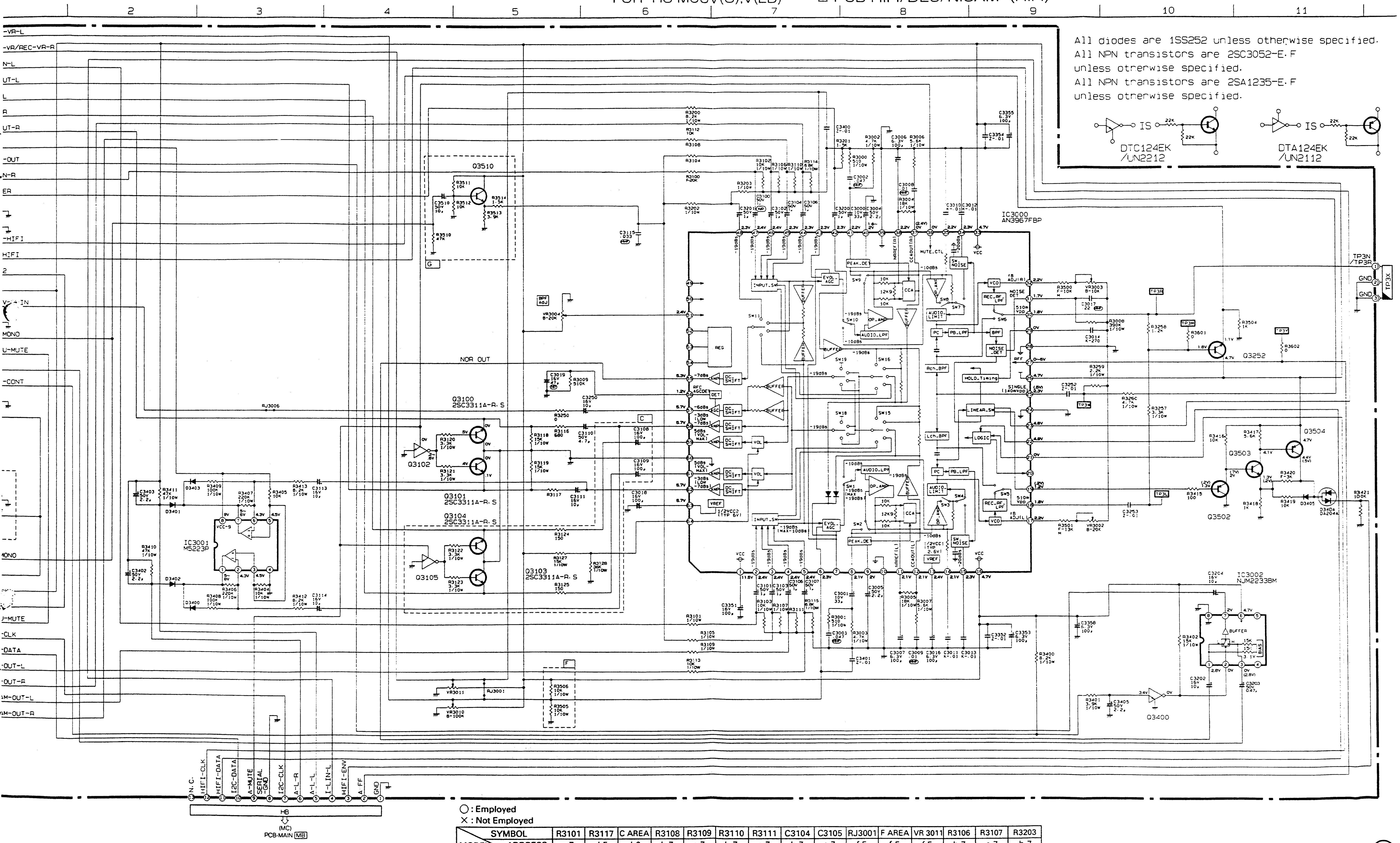
109	R3110	R3111	R3106	R3107	R3203
-6	b-7	e-7	b-7	e-7	b-7
Ω	×	×	22K	22K	22K
K	39K	39K	22K	22K	22K


1
2
3
4
5
a
b
c
d
e
f
g
REC-VR-L
REC-VR/REC-VR-R
A-IN-L
A-OUT-L
HP-L
HP-R
A-OUT-R
SW9
LIN-OUT
A-IN-R
LINER
GND
REC-HIFI
PB-HIFI
SW12
SW5
CONV-A-IN
TU-MONO
A+TU-MUTE
MIC
MIC-CONT
SIF
(Y/CSUB)
PCB-MAIN MC
HC
NOT EMPLOYED
HS
TO NICAM/DECODER
I2C-CLK
I2C-DATA
DEC-OUT-L
DEC-OUT-R
NICAM-OUT-L
NICAM-OUT-R
Q3510
G
BPF ADJ
VR3004
NOR OUT
Q3100
2SC3311A-R,S
Q3101
2SC3311A-R,S
Q3102
Q3104
2SC3311A-R,S
Q3103
2SC3311A-R,S
Q3105
IC3001
M5223P
RJ3006
RJ3001
VR3011
VR3010
F
N.C.
HIFI-CLK
HIFI-DATA
I2C-DATA
A-MUTE
SERIAL SEND
I2C-CLK
A-L-R
A-L-L
I-LIN-L
HIFI-ENV
A-FF
GND
HB
(MC)
PCB-MAIN MB

○ : Employed
× : Not Employed

SYMBOL / MODEL ADDRESS	R3101	R
ADDRESS	e-7	
HS-M60V(G)	F-13K	3
HS-M60V(ED)	20K	

FOR HS-M60V(G),V(ED) △ PCB-HIFI/DEC/NICAM (HIFI)


2
3
4
5
6
7
8
9
10
11
Q3510
Q3100 2SC3311A-R.S
Q3101 2SC3311A-R.S
Q3102
Q3103 2SC3311A-R.S
Q3104 2SC3311A-R.S
Q3105
IC3000 AN3967FBP
IC3001 M5223P
IC3002 NJM2233BM
Q3252
Q3400
Q3502
Q3503
Q3504
NOR OUT
TP3N
/TP3R
GND
GND
TP3X
DTC124EK /UN2212
DTA124EK /UN2112
IS
22K
N.C.
HIFI-CLK
HIFI-DATA
I2C-DATA
A-MUTE
SERIAL GND
I2C-CLK
A-L-R
A-L-L
I-LIN-L
HIFI-ENV
A FF
GND
HB
(MC)
PCB-MAIN MB

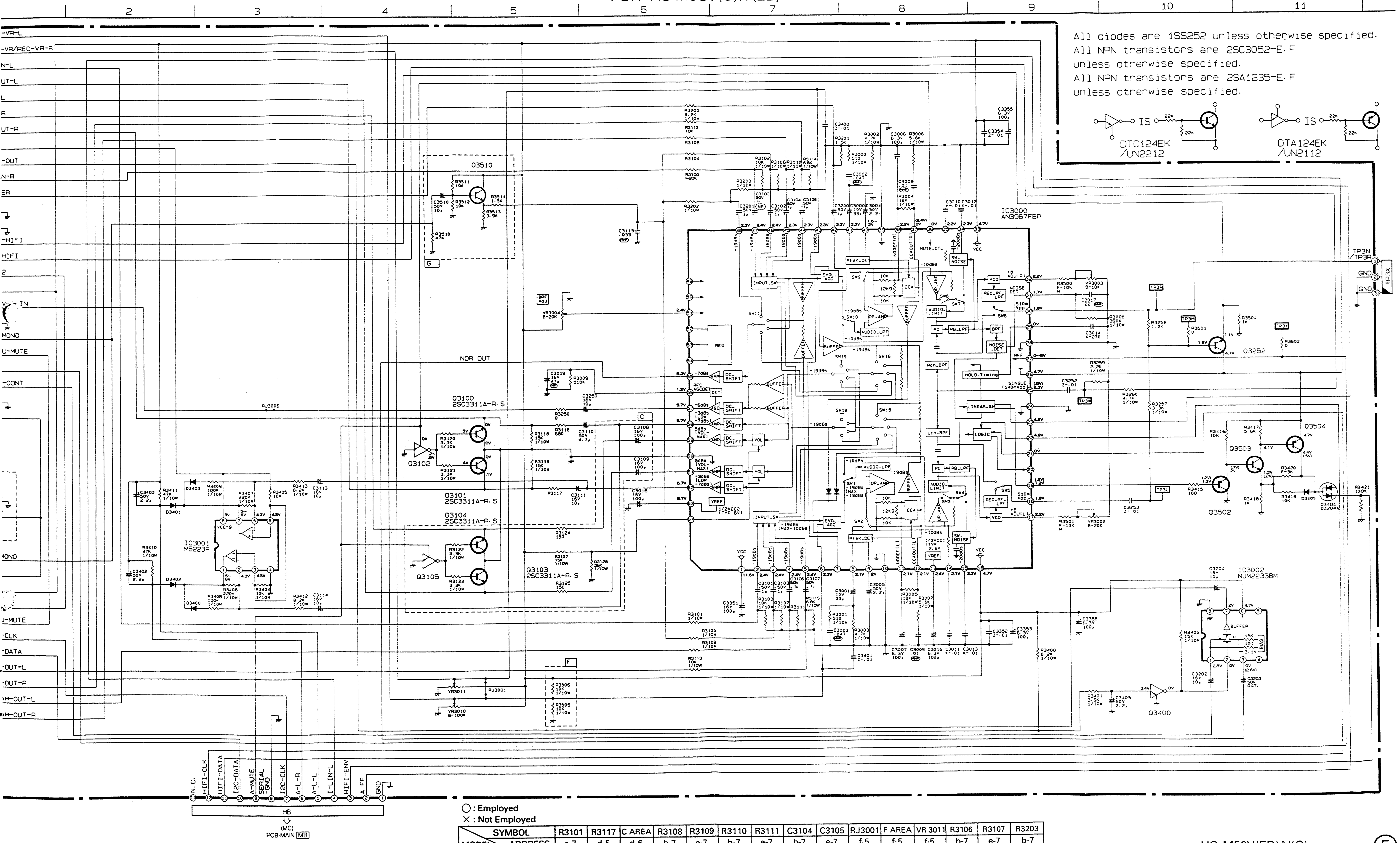
All diodes are 1SS252 unless otherwise specified.
All NPN transistors are 2SC3052-E.F
unless otherwise specified.
All NPN transistors are 2SA1235-E.F
unless otherwise specified.

○ : Employed
× : Not Employed

SYMBOL / MODEL ╲ ADDRESS	R3101	R3117	C AREA	R3108	R3109	R3110	R3111	C3104	C3105	RJ3001	F AREA	VR 3011	R3106	R3107	R3203
	e-7	d-5	d-6	b-7	e-7	b-7	e-7	b-7	e-7	f-5	f-5	f-5	b-7	e-7	b-7
HS-M60V(G)	F-13K	3.9K	○	×	×	×	×	×	×	×	×	B-100K	22K	22K	22K
HS-M60V(ED)	20K	0Ω	×	18K	18K	39K	39K	50V 1μ	50V 1μ	○	○	×	22K	22K	22K

FOR HS-M60V(G),V(ED) △ PCB-HIFI/DEC/NICAM (HIFI)

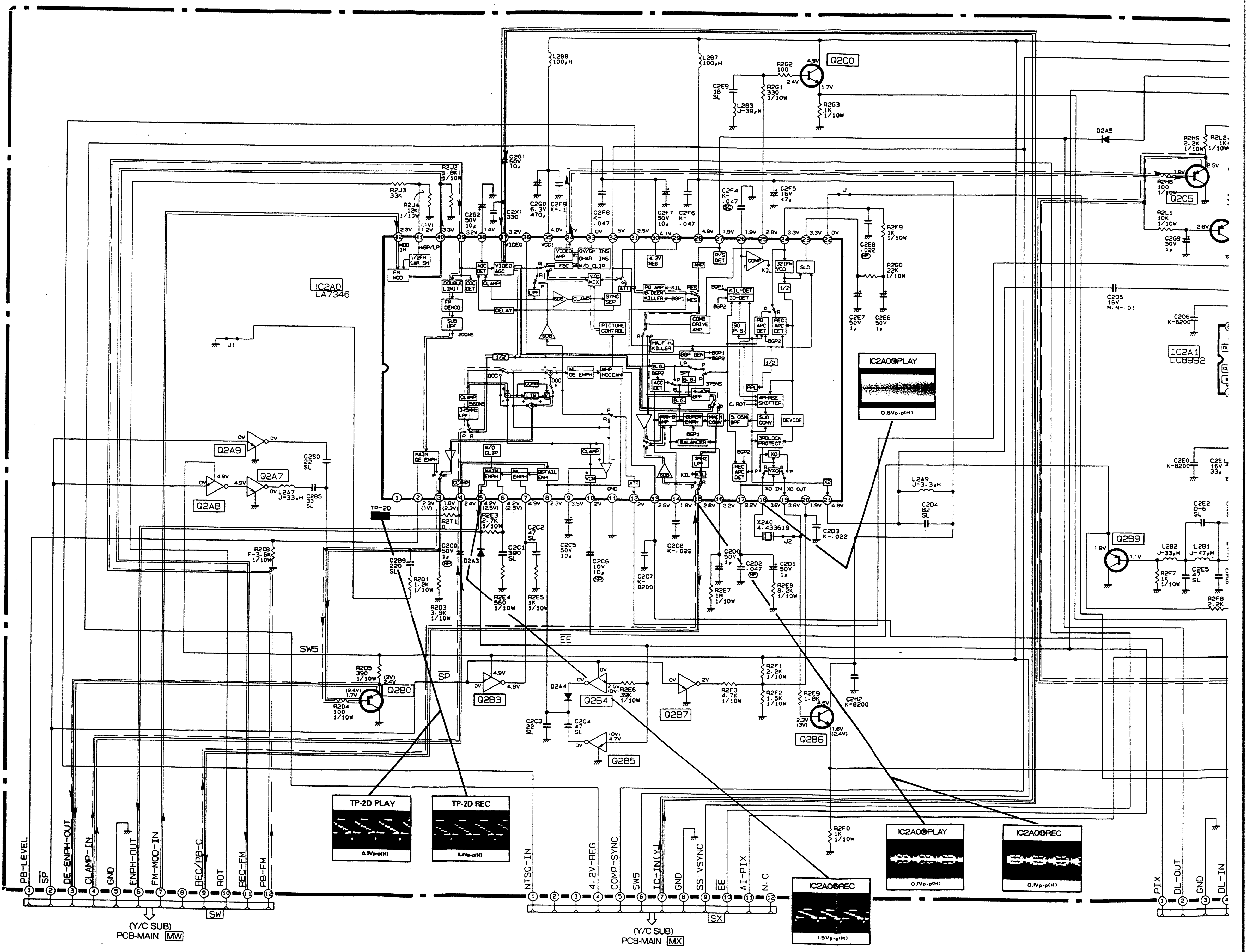
All diodes are 1SS252 unless otherwise specified.
All NPN transistors are 2SC3052-E·F
unless otherwise specified.
All NPN transistors are 2SA1235-E·F
unless otherwise specified.


2
3
4
5
6
7
8
9
10
11
IS
22K
DTC124EK
/UN2212
DTA124EK
/UN2112
IC3000
AN3967FBP
IC3001
M5223P
IC3002
NJM2233BM
Q3510
Q3100
2SC3311A-R·S
Q3101
2SC3311A-R·S
Q3102
Q3103
2SC3311A-R·S
Q3104
2SC3311A-R·S
Q3105
Q3252
Q3502
Q3503
Q3504
Q3400
NOR OUT
TP3N
/TP3R
TP3X
GND
N.C.
HIFI-CLK
HIFI-DATA
I2C-DATA
A-MUTE
SERIAL-GND
I2C-CLK
A-L-R
A-L-L
I-LIN-L
HIFI-ENV
A.FF
GND
HB
(MC)
PCB-MAIN MB

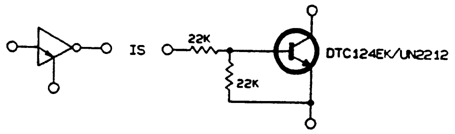
○ : Employed
× : Not Employed

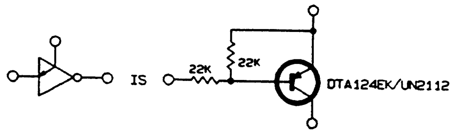
MODEL \ SYMBOL / ADDRESS	R3101	R3117	C AREA	R3108	R3109	R3110	R3111	C3104	C3105	RJ3001	F AREA	VR 3011	R3106	R3107	R3203
	e-7	d-5	d-6	b-7	e-7	b-7	e-7	b-7	e-7	f-5	f-5	f-5	b-7	e-7	b-7
HS-M60V(G)	F-13K	3.9K	○	×	×	×	×	×	×	×	×	B-100K	22K	22K	22K
HS-M60V(ED)	20K	0Ω	×	18K	18K	39K	39K	50V 1μ	50V 1μ	○	○	×	22K	22K	22K

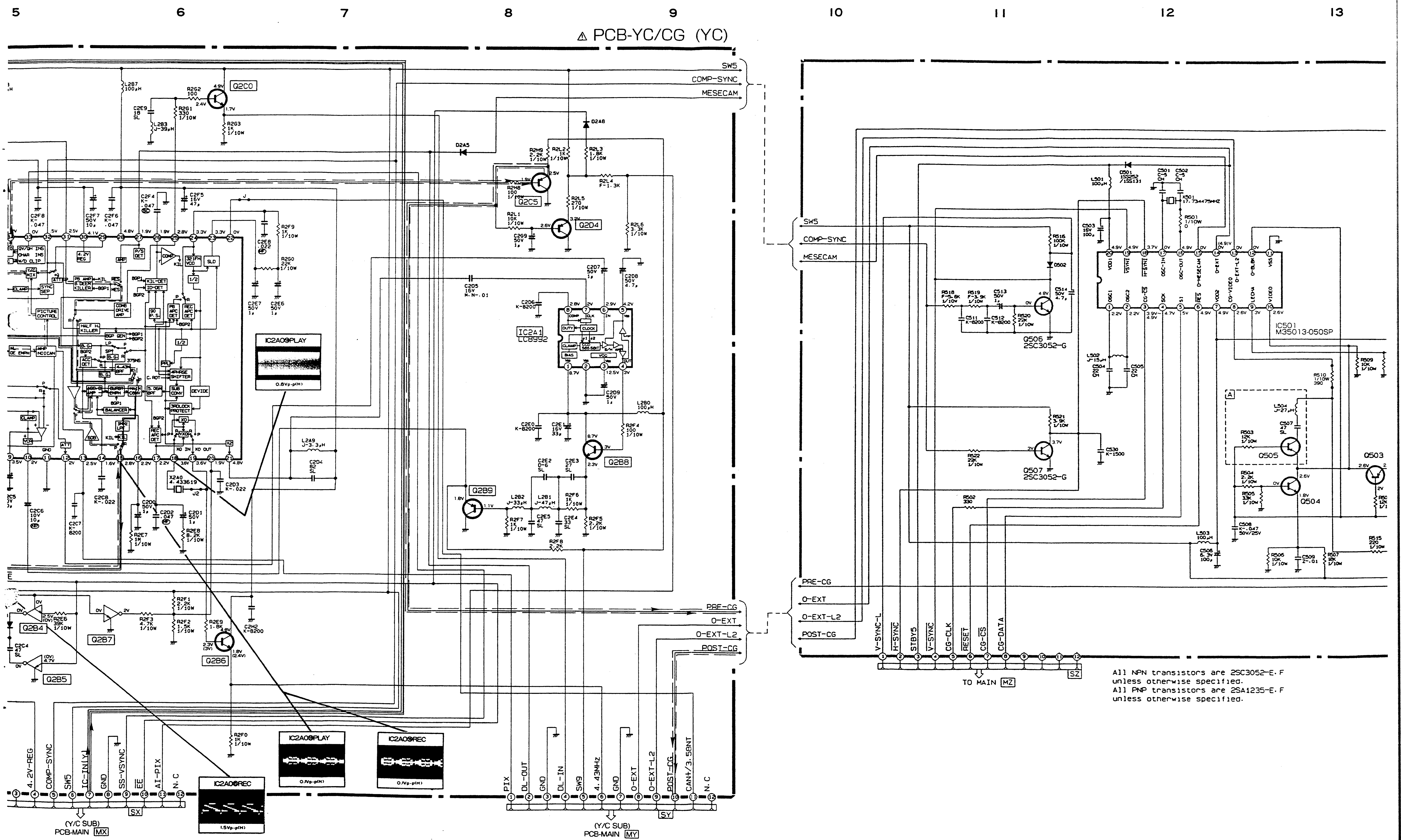
HS-M50V(ED)/V(G)
HS-M60V(ED)/V(G)


1
2
3
4
5
6
7
8
A
B
C
D
E
IC2A0
LA7346
Q2C0
Q2C5
IC2A1
LC8992
Q2A9
Q2A7
Q2A8
Q2B0
Q2B3
Q2B4
Q2B5
Q2B7
Q2B6
Q2B9
TP-2D
SW5
SP
EE
IC2A0⑨PLAY
0.8Vp-p(H)
TP-2D PLAY
TP-2D REC
IC2A0⑬REC
IC2A0⑮PLAY
IC2A0⑮REC
1.5Vp-p(H)
PB-LEVEL
SP
DE-ENPH-OUT
CLAMP-IN
GND
ENPH-OUT
FM-MOD-IN
REC/PB-C
ROT
REC-FM
PB-FM
SW
(Y/C SUB)
PCB-MAIN MW
NTSC-IN
4.2V-REG
COMP-SYNC
SW5
IC-IN(Y)
GND
SS-VSYNC
EE
AI-PIX
N.C
SX
(Y/C SUB)
PCB-MAIN MX
PIX
DL-OUT
GND
DL-IN

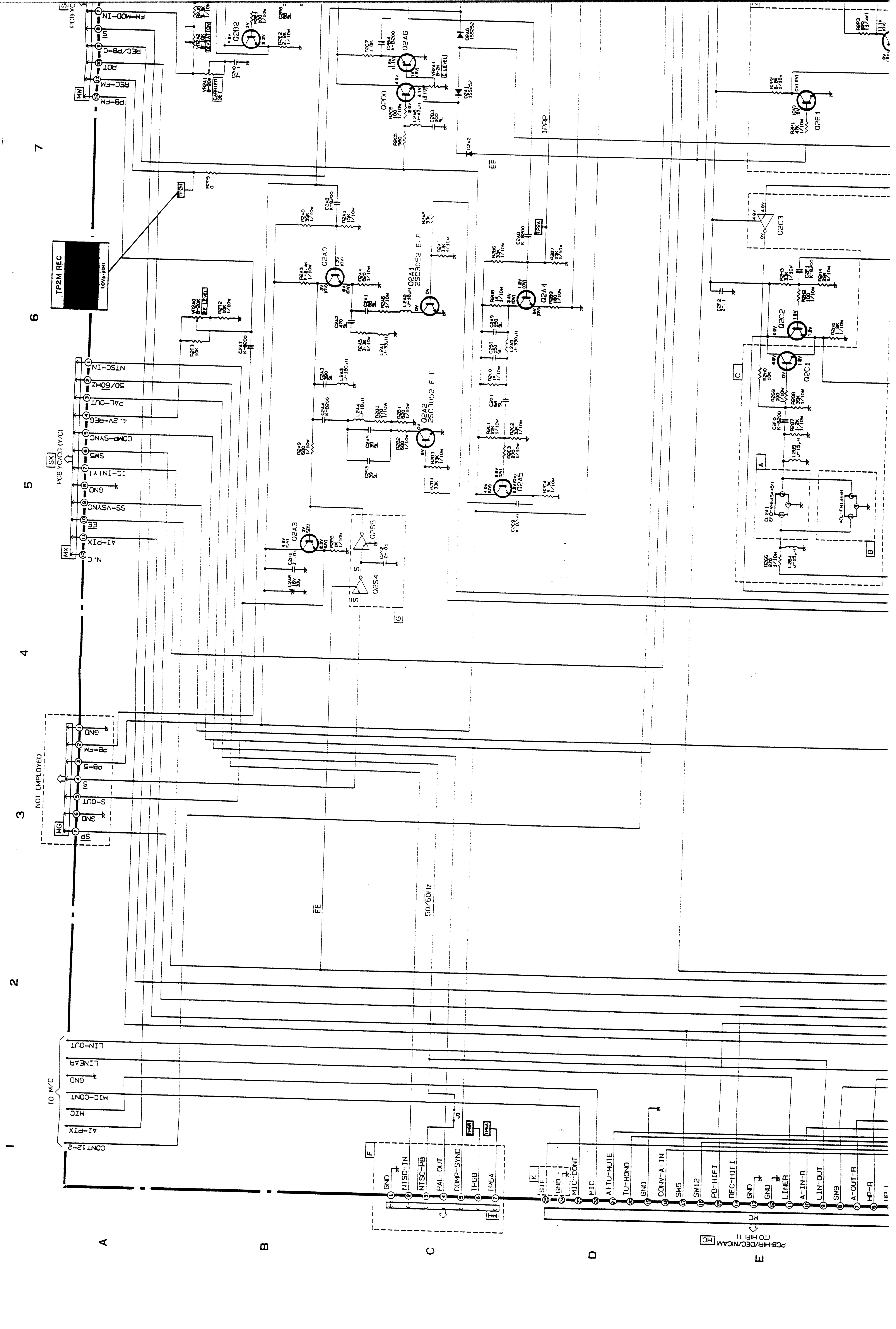
All diodes are 1SS252/1SS131 unless otherwise specified.
All NPN transistors are 2SC3053-C·D unless otherwise specified.
All PNP transistors are 2SA1235-E·F unless otherwise specified.

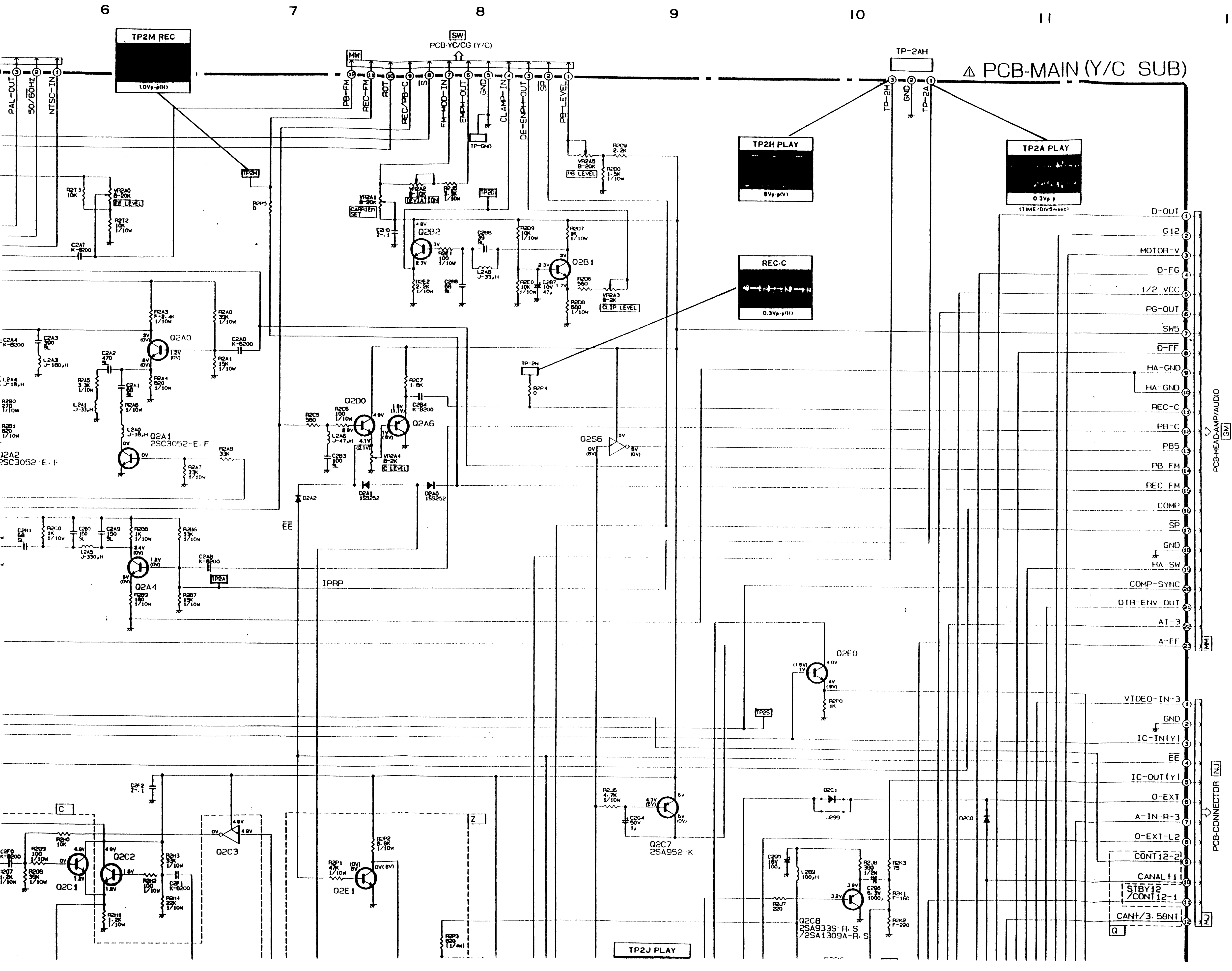

IS
22K
22K
DTC124EK/UN2212


IS
22K
22K
DTA124EK/UN2112


5
6
7
8
9
10
11
12
13
⚠ PCB-YC/CG (YC)
SW5
COMP-SYNC
MESECAM
PRE-CG
O-EXT
O-EXT-L2
POST-CG
Q2C0
Q2C5
Q2D4
Q2B8
Q2B9
Q2B4
Q2B5
Q2B6
Q2B7
D2A5
D2A6
IC2A1
LC8992
IC2A0⑨PLAY
0.8Vp-p(H)
IC2A0⑩PLAY
0.1Vp-p(H)
IC2A0⑩REC
IC2A0⑨REC
1.5Vp-p(H)
X2A0
4.433619
IC501
M35013-050SP
Q506
2SC3052-G
Q507
2SC3052-G
Q505
Q504
Q503
D501
1SS252
/1SS131
D502
X501
17.734475MHz
4.2V-REG
COMP-SYNC
SW5
IC-IN(Y)
GND
SS-VSYNC
EE
AI-PIX
N.C
SX
(Y/C SUB)
PCB-MAIN MX
PIX
DL-OUT
GND
DL-IN
SW9
4.43MHz
GND
O-EXT
O-EXT-L2
POST-CG
CAN+/3.58NT
N.C
SY
(Y/C SUB)
PCB-MAIN MY
V-SYNC-L
H-SYNC
STBY5
V-SYNC
CG-CLK
RESET
CG-CS
CG-DATA
TO MAIN MZ
SZ

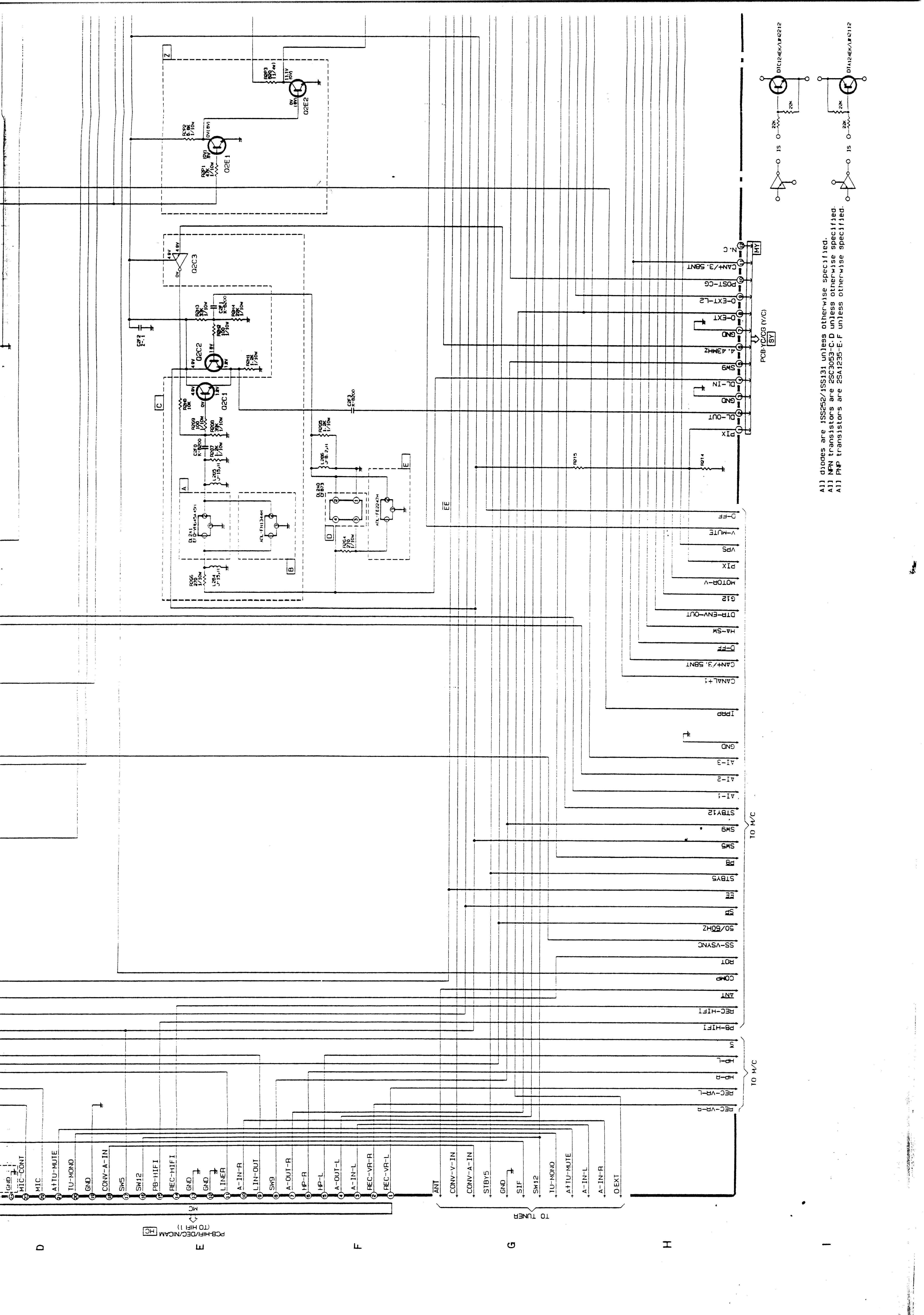
All NPN transistors are 2SC3052-E.F unless otherwise specified.
All PNP transistors are 2SA1235-E.F unless otherwise specified.


TP2M REC
TP2M
TP2A
IP2A
IPRP
EE
50/60Hz
PCB YC/CG (Y/C)
SX
MX
MW
MG
NOT EMPLOYED
TO M/C
NTSC-IN
50/60HZ
PAL-OUT
4.2V-REG
COMP-SYNC
SW5
IC-IN(Y)
GND
SS-VSYNC
EE
AI-PIX
N.C
FM-MOD-IN
IOI
REC/PB-C
ROT
REC-FM
PB-FM
GND
PB-FM
PB-S
IOI
S-OUT
GND
SD
LIN-OUT
LINEAR
GND
MIC-CONT
MIC
AI-PIX
CONT12-2
GND
NTSC-IN
NTSC-PB
PAL-OUT
COMP-SYNC
IP6B
IP6A
SIF
GND
MIC-CONT
MIC
A+TU-MUTE
TU-MONO
GND
CONV-A-IN
SW5
SW12
PB-HIFI
REC-HIFI
GND
GND
LINER
A-IN-R
LIN-OUT
SW9
A-OUT-R
HP-R
PCB-HIFI/DEC/NICAM
(TO HIFI 1)
Q2A0
Q2A1
2SC3052·E,F
Q2A2
2SC3052·E,F
Q2A3
Q2A4
Q2A5
Q2A6
Q2D0
Q2B2
Q2S4
Q2S5
Q2C1
Q2C2
Q2C3
Q2E1
D2A1
D2A2
1SS252
CARRIER SET
RF LEVEL
C LEVEL
A
B
C
F
G
K
1
2
3
4
5
6
7
A
B
C
D
E


6
7
8
9
10
11
12
13
⚠ PCB-MAIN (Y/C SUB)
TP2M REC
1.0Vp-p(H)
TP2H PLAY
8Vp-p(V)
TP2A PLAY
0.3Vp-p
(TIME/DIV5msec)
REC-C
0.3Vp-p(H)
TP2J PLAY
TP-2AH
TP-2H
GND
TP-2A
SW
PCB-YC/CG (Y/C)
MW
PB-FM
REC-FM
ROT
REC/PB-C
IS
FM-MOD-IN
EMPH-OUT
GND
CLAMP-IN
DE-ENPH-OUT
SP
PB-LEVEL
PAL-OUT
50/60HZ
NTSC-IN
TP-GND
TP20
TP2H
TP-2N
TP2A
TP2S
VR2A0 B-20K EE LEVEL
VR2A1 B-20K CARRIER SET
VR2A2 B-10K DEVIATION
VR2A3 B-2K CLIP LEVEL
VR2A4 B-2K C LEVEL
VR2A5 B-20K PB LEVEL
Q2A0
Q2A1 2SC3052-E·F
Q2A2 2SC3052·E·F
Q2A4
Q2A6
Q2B1
Q2B2
Q2D0
Q2S6
Q2C1
Q2C2
Q2C3
Q2C7 2SA952·K
Q2C8 2SA933S-R·S /2SA1309A-R·S
Q2E0
Q2E1
D2A0 1SS252
D2A1 1SS252
D2A2
D2C0
D2C1
J299
EE
IPRP
C
Z
Q
D-OUT
G12
MOTOR-V
D-FG
1/2 VCC
PG-OUT
SW5
D-FF
HA-GND
HA-GND
REC-C
PB-C
PB5
PB-FM
REC-FM
COMP
SP
GND
HA-SW
COMP-SYNC
DTR-ENV-OUT
AI-3
A-FF
PCB-HEAD-AMP/AUDIO
GM
MM
VIDEO-IN-3
GND
IC-IN(Y)
EE
IC-OUT(Y)
O-EXT
A-IN-R-3
O-EXT-L2
CONT12-2
CANAL+1
STBY12 /CONT12-1
CANt/3.58NT
PCB-CONNECTOR
NJ

○: Empoloyed ✕: Not Empoloyed

	60V (G)	60V (ED)	50V(G)	50V(ED)
SYMBOL				
A AREA	✕	✕	✕	✕
B AREA	✕	✕	✕	✕
C AREA	✕	✕	✕	✕
D AREA	○	○	○	○
E AREA	✕	✕	✕	✕
F AREA	✕	✕	✕	✕
G AREA	✕	✕	✕	✕
H AREA	✕	✕	✕	✕
K AREA	○	○	○	○
Q AREA	○	✕	○	✕
Z AREA	✕	○	✕	○
J3	✕	✕	✕	✕
D2C0	○	✕	○	○
D2C1	○	✕	○	○
J299	✕	○	✕	✕
Q2E0	○	○	○	○
R2P0	○	○	○	○
R2T4	5.6K	✕	5.6K	5.6K
R2T5	5.6K	✕	5.6K	5.6K
R2B0	F-240	270	F-240	270
R2B1	1K	820	1K	820
R2B2	2.2K	680	2.2K	680
C2S3	22P	39P	22P	39P


Q2E1
Q2E2
Q2C1
Q2C2
Q2C3
R2E1 47K 1/10W
R2E2 5.6K 1/10W
R2E3 820 1/2W
C2F2 Z-1
C2F3 K-8200
C2F0 K-8200
C2F1 K-8200
DL241 EFD-VR1454451
4DL-FN1344H
DL240 D873
4DL-FE2247H
L204 J-15,H
L205 J-15,H
L206 J-8.2,H
R206 270 1/10W
R264 270 1/10W
R214
R215
Z
A
B
C
D
E
EE
PCB-YC/CG (Y/C) SY
MY
PIX
DL-OUT
GND
DL-IN
SW9
4.43MHZ
GND
O-EXT
O-EXT-L2
POST-CG
CAN+/3.58NT
N.C
TO M/C
O-FF
V-MUTE
VPS
PIX
MOTOR-V
G12
DTR-ENV-OUT
HA-SW
CAN+/3.58NT
CANAL+1
IPRP
GND
AI-3
AI-2
AI-1
STBY12
SW9
SW5
PB
STBY5
EE
SP
50/60HZ
SS-VSYNC
ROT
COMP
ANT
REC-HIFI
PB-HIFI
L
HP-L
HP-R
REC-VR-L
REC-VR-R
TO M/C
GND
MIC-CONT
MIC
A+TU-MUTE
TU-MONO
GND
CONV-A-IN
SW5
SW12
PB-HIFI
REC-HIFI
GND
GND
LINER
A-IN-R
LIN-OUT
SW9
A-OUT-R
HP-R
HP-L
A-OUT-L
A-IN-L
REC-VR-R
REC-VR-L
MC
PCB-HIFI/DEC/NICAM HC
(TO HIFI 1)
ANT
CONV-V-IN
CONV-A-IN
STBY5
GND
SIF
SW12
TU-MONO
A+TU-MUTE
A-IN-L
A-IN-R
O.EXT
TO TUNER
DTC124EK/UN2212
DTA124EK/UN2112
22K
IS
D
E
F
G
H
I

All diodes are 1SS252/1SS131 unless otherwise specified.
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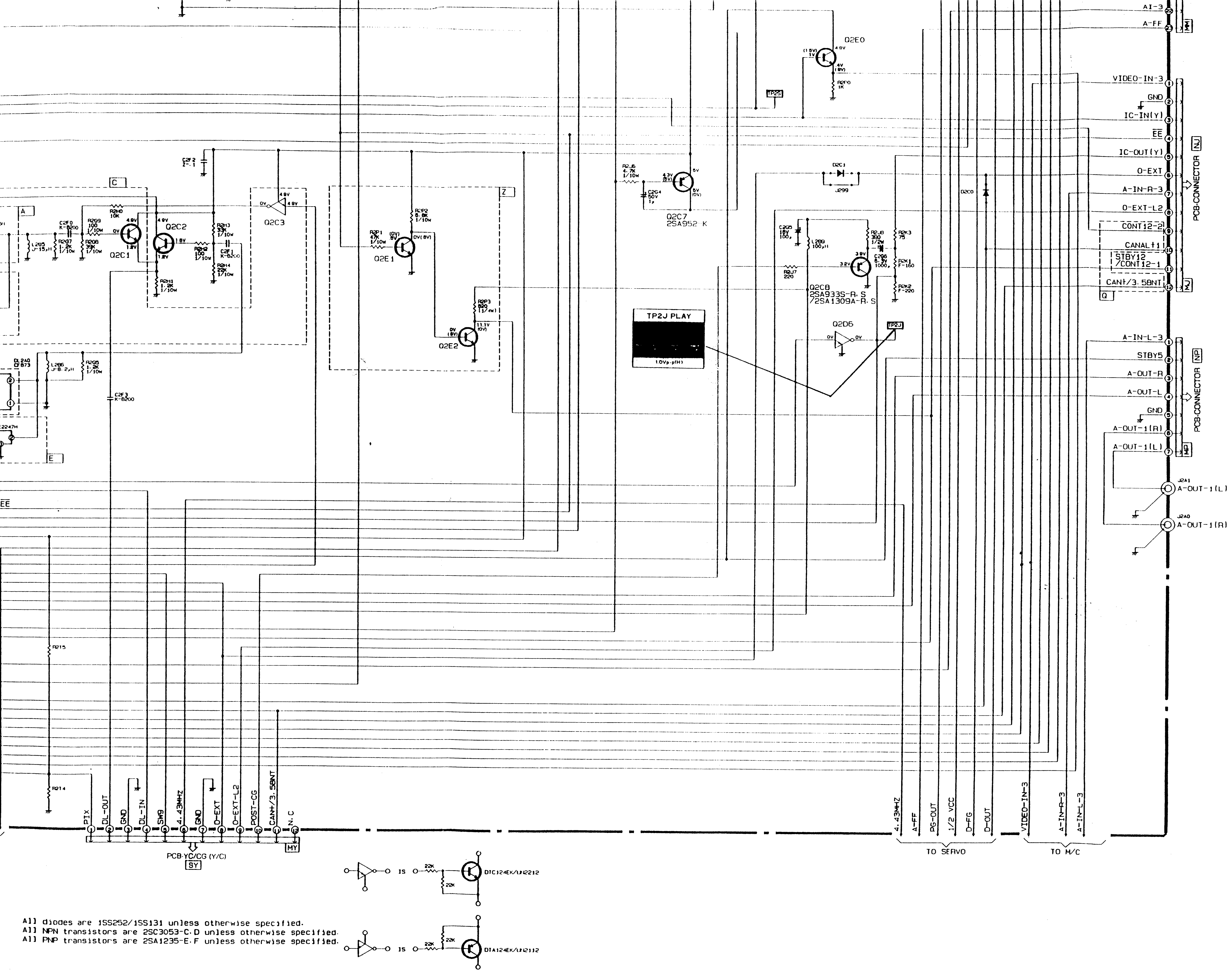
AI-3
A-FF
VIDEO-IN-3
GND
IC-IN(Y)
EE
IC-OUT(Y)
O-EXT
A-IN-R-3
O-EXT-L2
CONT12-2
CANAL†1
STBY12 /CONT12-1
CAN†/3.58NT
PCB-CONNECTOR NJ
Q
A-IN-L-3
STBY5
A-OUT-R
A-OUT-L
GND
A-OUT-1(R)
A-OUT-1(L)
PCB-CONNECTOR NP
J2A1 A-OUT-1(L)
J2A0 A-OUT-1(R)
Q2E0
R2F0 1K
TP25
Q2C7 2SA952 K
R2J6 4.7K 1/10W
C2G4 50V 1μ
D2C1
J299
D2C0
R2K3 75
R2K1 F-160
R2K2 F-220
R2J8 390 1/2W
C2G6 6.3V 1000μ
Q2C8 2SA933S-R.S /2SA1309A-R.S
C2G5 16V 100μ
L209 100μH
R2J7 220
Q2D6
TP2J
TP2J PLAY
1.0Vp-p(H)
Z
R2P1 47K 1/10W
Q2E1
R2P2 6.8K 1/10W
R2P3 820 1/4W
Q2E2
C
Q2C3
C2F2 Z-1
Q2C1
Q2C2
R2H0 10K
R2G9 100 1/10W
R2G8 39K 1/10W
R2G7 1.2K 1/10W
C2F0 K-8200
L2G5 15μH
R2H1 1.2K 1/10W
R2H2 100 1/10W
R2H3 33K 1/10W
R2H4 22K 1/10W
C2F1 K-8200
A
DL2A0 CF873
L2G6 8.2μH
R2G5 1.2K 1/10W
C2F3 K-8200
E
EE
R215
R214
PIX
DL-OUT
GND
DL-IN
SW9
4.43MHZ
GND
O-EXT
O-EXT-L2
POST-CG
CAN†/3.58NT
N.C
MY
PCB-YC/CG (Y/C)
SY
4.43MHZ
A-FF
PG-OUT
1/2 VCC
D-FG
D-OUT
TO SERVO
VIDEO-IN-3
A-IN-R-3
A-IN-L-3
TO M/C
IS
22K
22K
DTC124EK/UN2212
DTA124EK/UN2112

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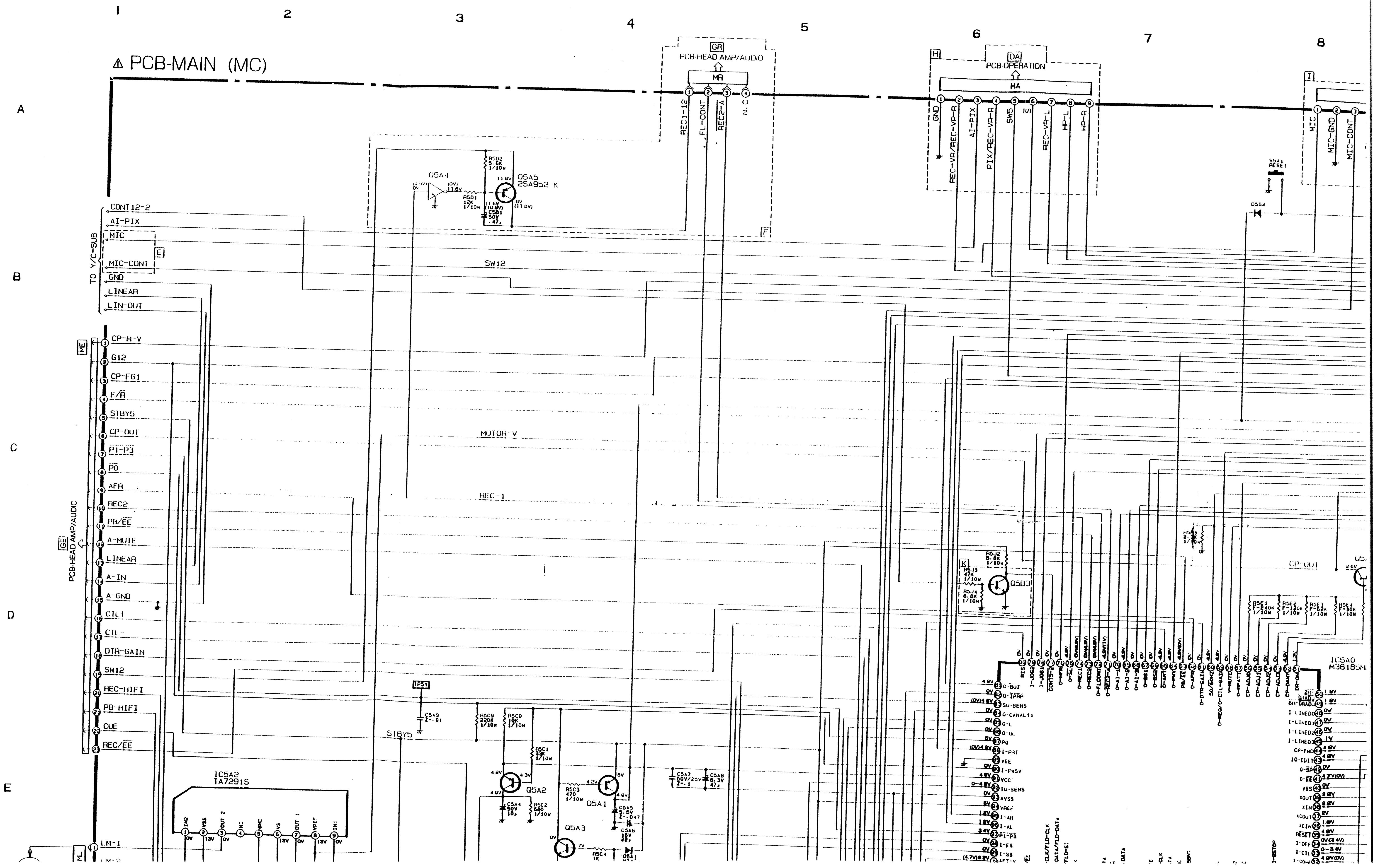
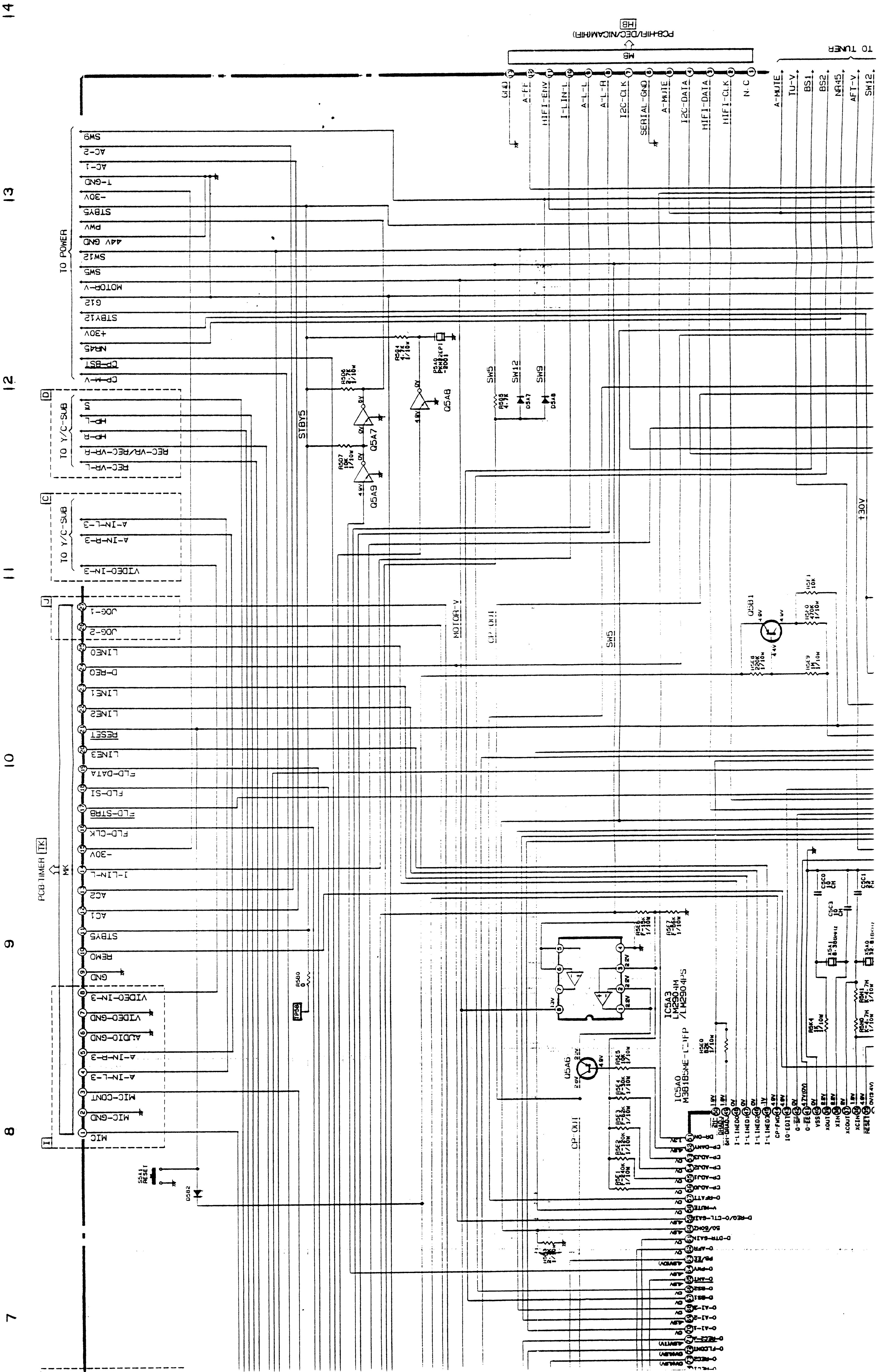
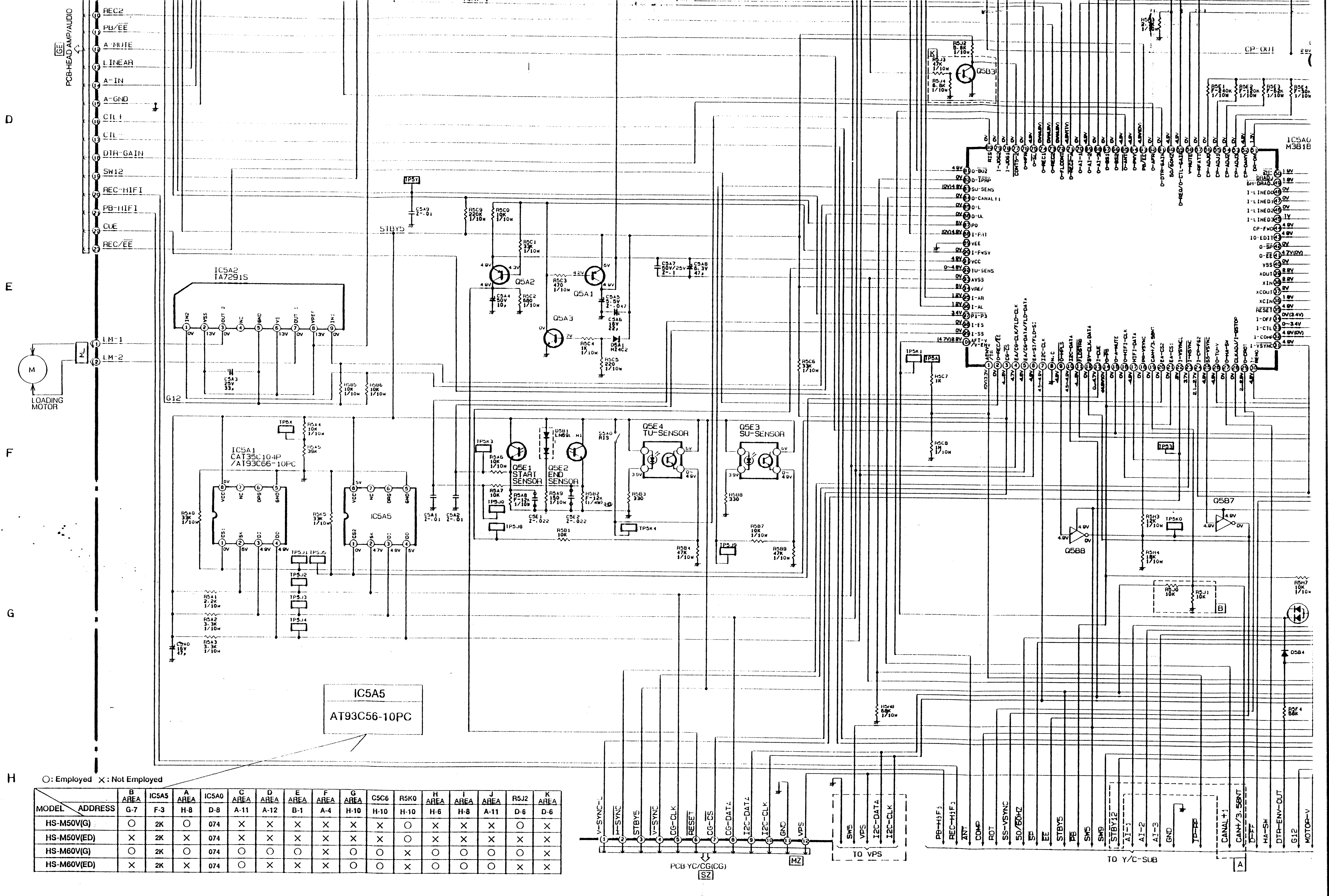
All PNP transistors are 2SA1235-E.F unless otherwise specified.



1
2
3
4
5
6
7
8
A
B
C
D
E
PCB-MAIN (MC)
GR
PCB-HEAD AMP/AUDIO
MR
REC1-12
FL-CONT
REC2-A
N.C
H
OA
PCB-OPERATION
MA
GND
REC-VR/REC-VR-R
AI-PIX
PIX/REC-VR-R
SW5
S
REC-VR-L
HP-L
HP-R
I
MIC
MIC-GND
MIC-CONT
S5A1
RESET
D5B2
Q5A4
Q5A5
2SA952-K
R5B2
5.6K
1/10W
R5B1
12K
1/10W
C5B1
50V
.47
F
TO Y/C-SUB
CONT12-2
AI-PIX
MIC
E
MIC-CONT
GND
LINEAR
LIN-OUT
SW12
ME
GE
PCB-HEAD AMP/AUDIO
CP-M-V
G12
CP-FG1
F/R
STBY5
CP-OUT
P1-P3
PO
AFH
REC2
PB/EE
A-MUTE
LINEAR
A-IN
A-GND
CTL+
CTL-
DTR-GAIN
SW12
REC-HIFI
PB-HIFI
CUE
REC/EE
MOTOR-V
REC-1
TP5Y
C5A9
STBY5
R5C9
220K
1/10W
R5C0
10K
1/10W
R5C1
33K
1/10W
Q5A2
C5A4
50V
10
R5C2
680
1/10W
R5C3
470
1/10W
Q5A1
C5A5
C5A6
Q5A3
R5C4
1K
D5A1
C5A7
C5A8
IC5A2
TA7291S
IN2
VSS
OUT 2
NC
GND
VS
OUT 1
VPEF
IN1
LM-1
LM-2
K
R5J2
6.8K
1/10W
R5J3
47K
1/10W
R5J4
6.8K
1/10W
Q5B3
CP OUT
R5E1
R5E2
R5E3
R5E4
IC5A0
M38185M
O-BUZ
O-TRAP
SU-SENS
O-CANAL11
O-L
O-UL
PO
I-PAT
VEE
I-FWSV
VCC
TU-SENS
AVSS
VREF
I-AR
I-AL
P1-P3
I-ES
I-SS
RIS
I-JOG2
I-JOG1
CONT5-2
O-HFR
O-SL
O-REC1
O-REC2
O-FLCONT
O-REC2-A
O-AI-1
O-AI-2
O-AI-3
O-BS1
O-BS2
O-ART
O-PWY
PB/EE
O-AFR
O-DTR-GAIN
50/60HZ
O-REO/O-CTL-GAIN
V-MUTE
O-FATT
CP-ADJ0
CP-ADJ1
CP-ADJ2
CP-ADJ3
CP-DANY
DP-ON
6H-DRAD
I-LINED0
I-LINED1
I-LINED2
I-LINED3
CP-FWD
IO-EDIT1
O-BP
O-EE
VSS
XOUT
XIN
XCOUT
XCIN
RESET
I-OFF
I-CTL
I-COMB
I-BSTOP


14
13
12
11
10
9
8
7
TO POWER
SW9
AC-2
AC-1
T-GND
-30V
STBY5
PWV
44V GND
SW12
SW5
MOTOR-V
G12
STBY12
+30V
NR45
CP-BST
CP-M-V
D
TO Y/C-SUB
S
HP-L
HP-R
REC-VR/REC-VR-R
REC-VR-L
C
A-IN-L-3
A-IN-R-3
VIDEO-IN-3
J
JOG-1
JOG-2
LINE0
D-REC
LINE1
LINE2
RESET
LINE3
FLD-DATA
FLD-SI
FLD-STRB
FLD-CLK
-30V
I-LIN-L
AC2
AC1
STBY5
REMO
GND
VIDEO-IN-3
VIDEO-GND
AUDIO-GND
A-IN-R-3
A-IN-L-3
MIC-CONT
MIC-GND
MIC
I
PCB-TIMER TK
MK
S5A1 RESET
D5B2
TP58
R5B0
STBY5
R5A6 2.7K 1/10W
R5A7 10K 1/10W
Q5A7
Q5A9
R5A4 4.7K 1/10W
P5A0 PKM22EP1 -8001
Q5A8
SW5
SW12
SW9
R5A5 4.7K
D5A7
D5A8
MOTOR-V
CP OUT
SW5
+30V
Q5B1
R5E8 220K 1/10W
R5E9 1M 1/10W
R5E0 470K 1/10W
R5F1 10K
PCB-HIFI/DEC/NICAM(HIFI) HB
MB
GND
A-FF
HIFI-ENV
I-LIN-L
A-L-L
A-L-R
I2C-CLK
SERIAL-GND
A-MUTE
I2C-DATA
HIFI-DATA
HIFI-CLK
N.C
TO TUNER
A-MUTE
TU-V
BS1
BS2
NR45
AFT-V
SW12
IC5A3 LM2904M /LM2904PS
R5E6 F-15K 1/10W
R5E7 F-56K 1/10W
Q5A6
R5E5 10K 1/10W
R5E4 F-30K 1/10W
R5E3 F-62K 1/10W
R5E2 F-120K 1/10W
R5E1 F-240K 1/10W
CP OUT
IC5A0 M38185ME-C1FP
R5E0 82K 1/10W
X5A1 8.38MHz
X5A0 32.8KHz
C5C0 CH
C5C1
C5C3 CH
R5K4 1K
R5H1 F-4.7M 1/10W
R5H0 F-4.7M 1/10W
DR-ON
CP-DATA
CP-AD2
CP-AD3
CP-AD4
CP-AD0
D-RFATT
V-MUTE
D-REC/D-CTL-GAIN
50/60HZ
D-DTR-GAIN
D-AFR
PB/EE
D-PWV
D-LNT
D-BS2
D-BS1
D-AI-3
D-AI-2
D-AI-1
D-FLDON
D-REC
DRAO
DH-DRAO
I-LINEO0
I-LINEO1
I-LINEO2
I-LINEO3
CP-FWD
IO-EDIT
O-SP
O-EE
VSS
XOUT
XIN
XCOUT
XCIN
RESET

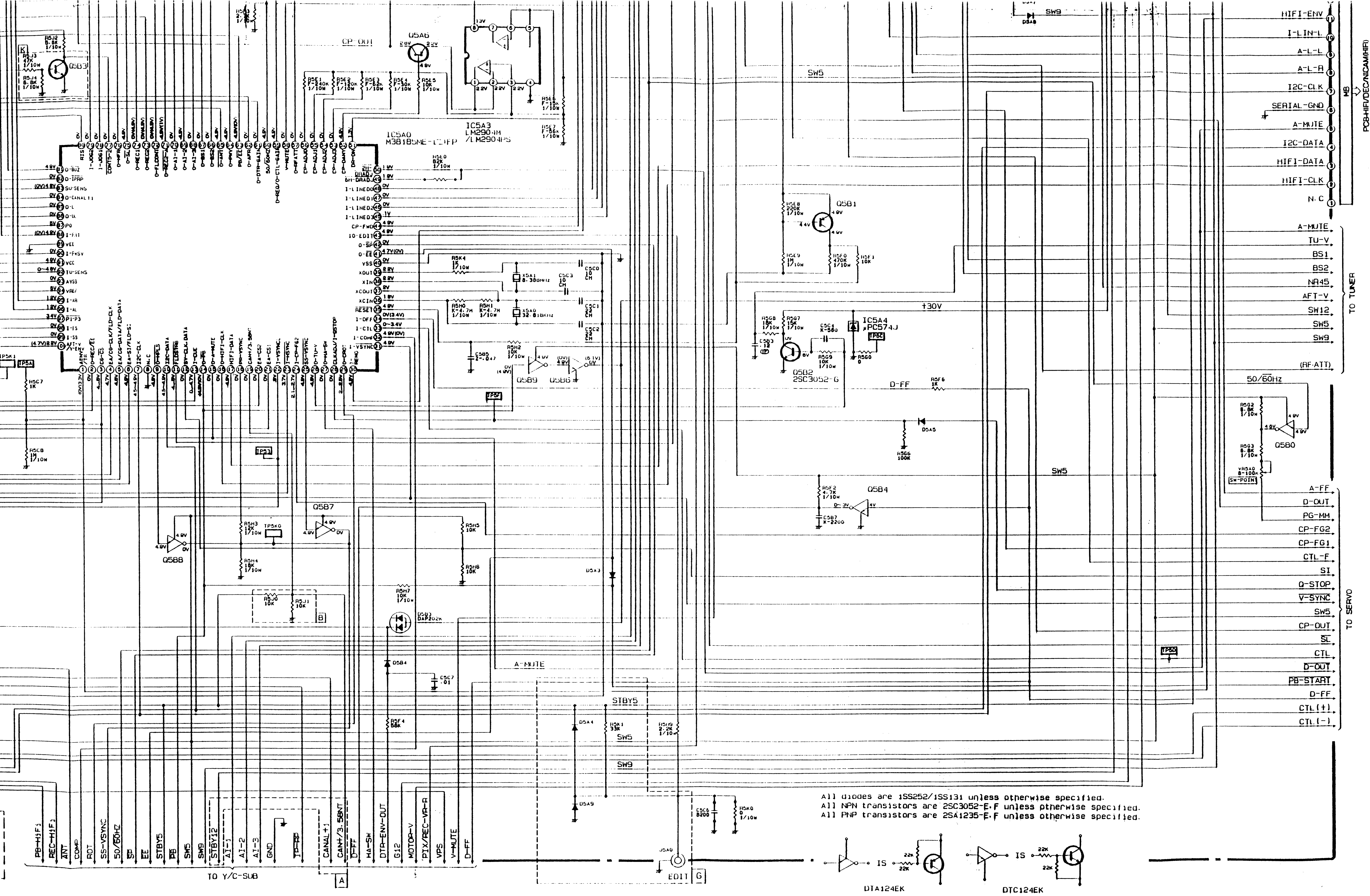

PCB-HEAD AMP/AUDIO
GE
REC2
PB/EE
A-MUTE
LINEAR
A-IN
A-GND
CTL+
CTL-
DTR-GAIN
SW12
REC-HIFI
PB-HIFI
CUE
REC/EE
LM-1
LM-2
M
LOADING MOTOR
D
E
F
G
H
IC5A2
TA7291S
G12
IC5A1
CAT35C104P
/AT93C66-10PC
IC5A5
TP5Y
STBY5
Q5A1
Q5A2
Q5A3
Q5E1
START SENSOR
Q5E2
END SENSOR
Q5E3
SU-SENSOR
Q5E4
TU-SENSOR
Q5B3
Q5B7
Q5B8
D5B4
IC5A0
M381B
CP-OUT
PCB-YC/CG(CG)
SZ
MZ
V-SYNC-L
H-SYNC
STBY5
V-SYNC
CG-CLK
RESET
CG-CS
CG-DATA
I2C-DATA
I2C-CLK
GND
VPS
SW5
VPS
I2C-DATA
I2C-CLK
TO VPS
PB-HiFi
REC-HiFi
ANT
COMP
ROT
SS-VSYNC
50/60HZ
SP
EE
STBY5
PB
SW5
SW9
STBY12
AI-1
AI-2
AI-3
GND
IP-RP
CANAL+1
CAN+/3.58NT
D-FF
HA-SW
DTR-ENV-OUT
G12
MOTOR-V
TO Y/C-SUB
A
B
K

IC5A5

AT93C56-10PC

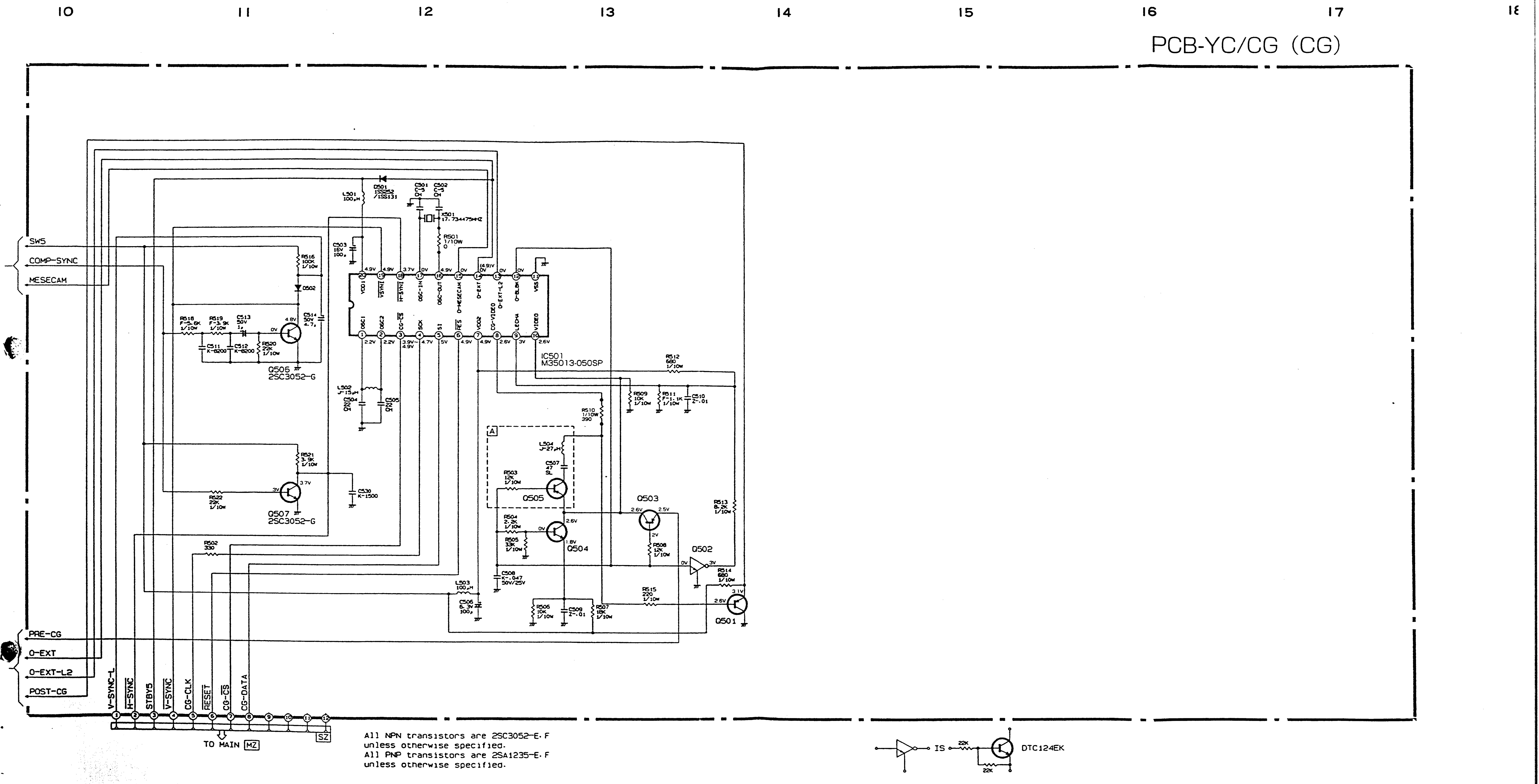
○: Employed ×: Not Employed

MODEL \ ADDRESS	B AREA	IC5A5	A AREA	IC5A0	C AREA	D AREA	E AREA	F AREA	G AREA	C5C6	R5K0	H AREA	I AREA	J AREA	R5J2	K AREA
	G-7	F-3	H-8	D-8	A-11	A-12	B-1	A-4	H-10	H-10	H-10	H-6	H-8	A-11	D-6	D-6
HS-M50V(G)	○	2K	○	074	×	×	×	×	×	×	○	×	×	×	○	×
HS-M50V(ED)	×	2K	×	074	×	×	×	×	×	×	○	×	×	×	×	×
HS-M60V(G)	○	2K	○	074	○	○	○	×	○	○	×	○	○	○	○	×
HS-M60V(ED)	×	2K	×	074	○	×	×	×	○	○	×	○	○	○	×	×


PCB-HIFI/DEC/NICAM(HIFI)
HB
MB
HIFI-ENV
I-LIN-L
A-L-L
A-L-R
I2C-CLK
SERIAL-GND
A-MUTE
I2C-DATA
HIFI-DATA
HIFI-CLK
N.C
TO TUNER
A-MUTE
TU-V
BS1
BS2
NA45
AFT-V
SW12
SW5
SW9
(RF-ATT)
50/60Hz
TO SERVO
A-FF
D-OUT
PG-MM
CP-FG2
CP-FG1
CTL-F
SI
Q-STOP
V-SYNC
SW5
CP-OUT
SL
CTL
D-OUT
PB-START
D-FF
CTL(+)
CTL(-)
TO Y/C-SUB
PB-HiFi
REC-HiFi
ANT
COMP
ROT
SS-VSYNC
50/60HZ
SP
EE
STBY5
PB
SW5
SW9
STBY12
AI-1
AI-2
AI-3
GND
TP-RP
CANAL+1
CANH/3.58NT
D-FF
HA-SW
DTR-ENV-OUT
G12
MOTOR-V
PIX/REC-VR-R
VPS
V-MUTE
D-FF
A
B
G
K
EDIT
J5A0
IC5A0
M38185ME-L11FP
IC5A3
LM2904M
/LM2904PS
IC5A4
μPC574J
Q5A6
Q5B1
Q5B2
2SC3052-G
Q5B3
Q5B4
Q5B6
Q5B7
Q5B8
Q5B9
Q5B0
D5A3
D5A4
D5A5
D5A8
D5A9
D5B3
DAP202K
D5B4
X5A1
8.38MHz
X5A0
32.768KHz
TP5A
TP5B
TP5C
TP5F
TP5K0
TP5K1
TP53
TP5D
VR5A0
B-100K
SW-POINT
CP-OUT
SW5
SW9
D-FF
+30V
A-MUTE
STBY5
DTA124EK
DTC124EK
IS
22K
22K

All diodes are 1SS252/1SS131 unless otherwise specified.
All NPN transistors are 2SC3052-E.F unless otherwise specified.
All PNP transistors are 2SA1235-E.F unless otherwise specified.

PCB-YC/CG (CG)



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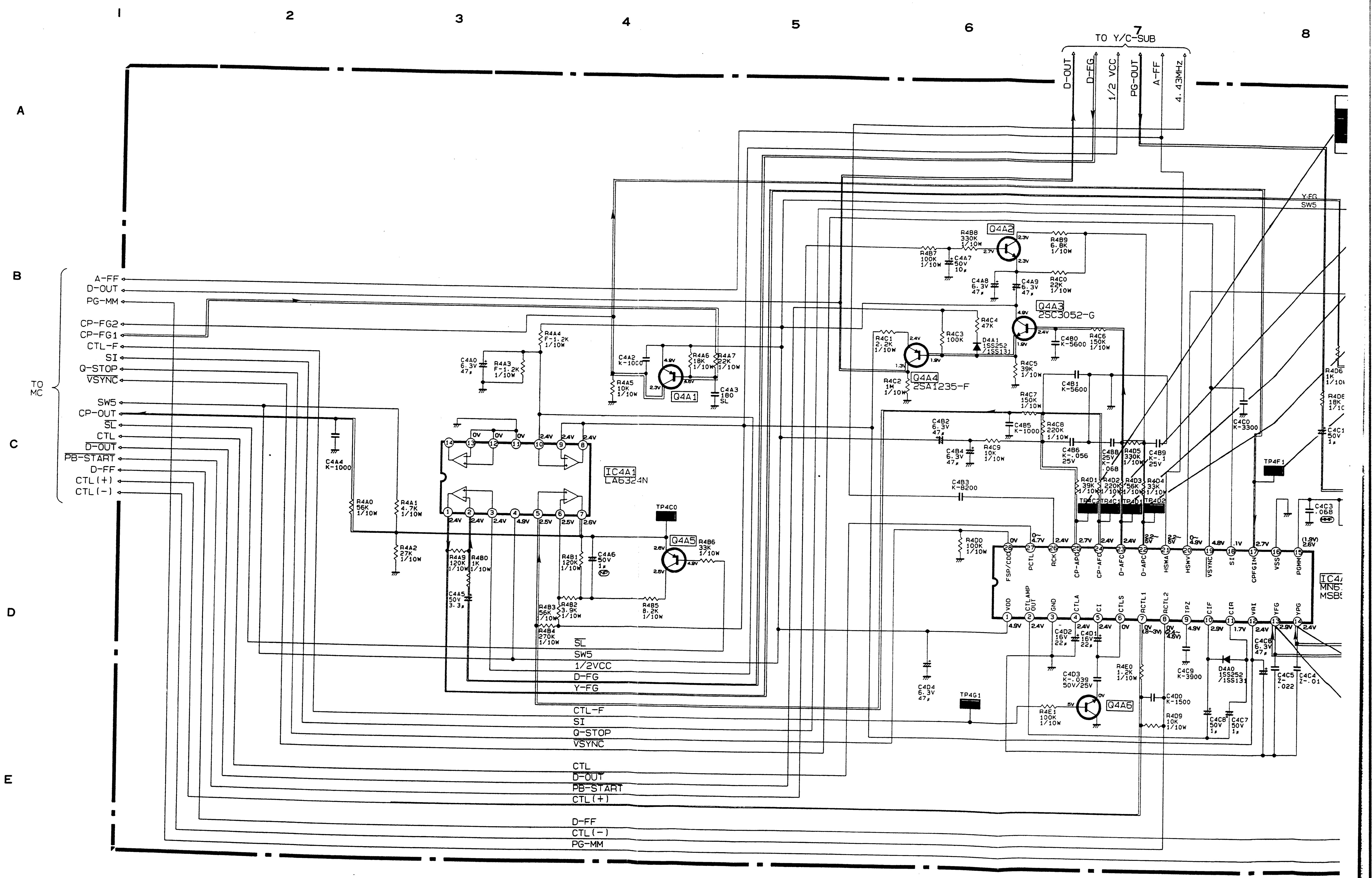
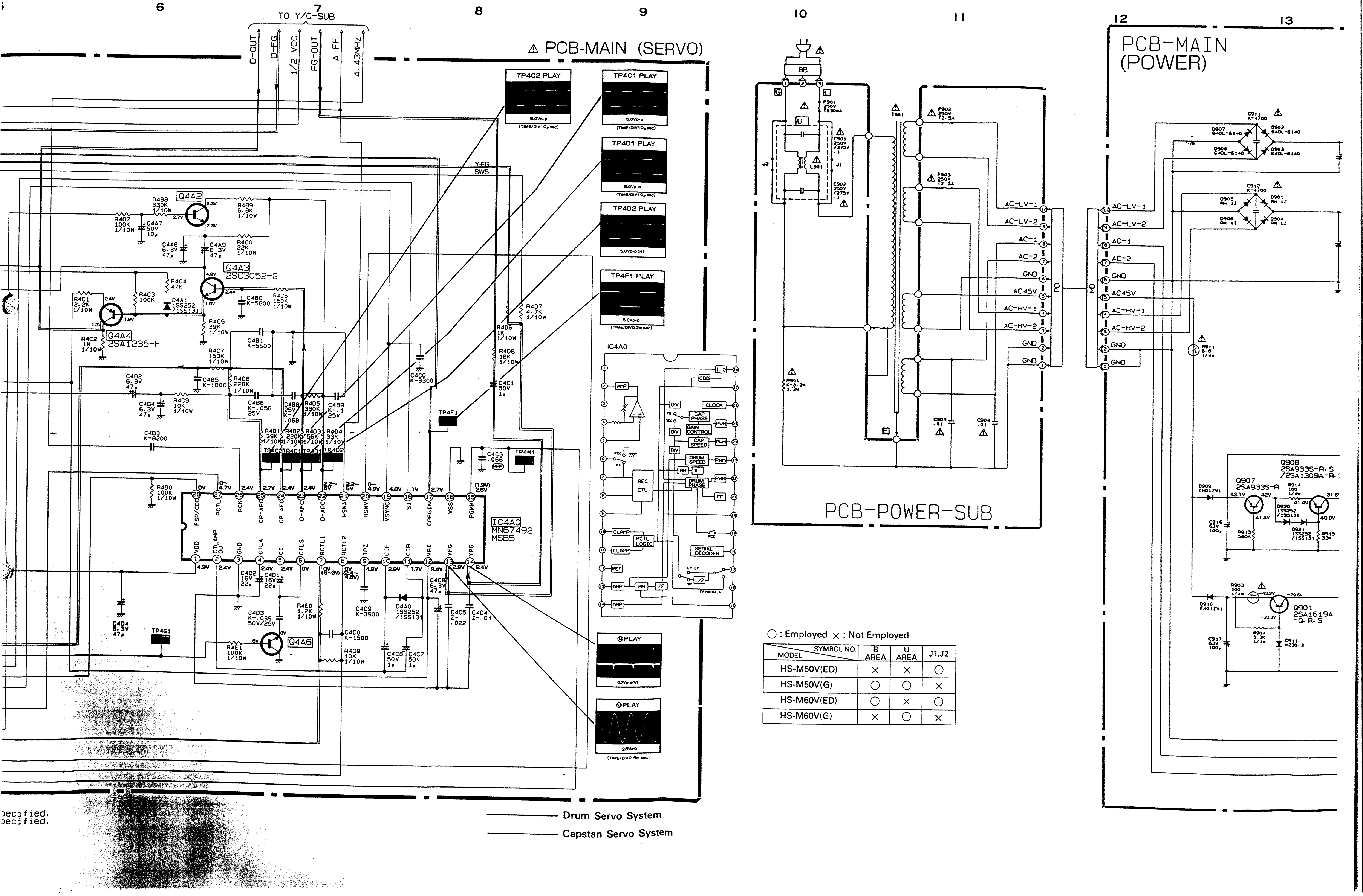
SWS
COMP-SYNC
MESECAM
PRE-CG
O-EXT
O-EXT-L2
POST-CG
V-SYNC-L
H-SYNC
STBYS
V-SYNC
CG-CLK
RESET
CG-CS
CG-DATA
TO MAIN MZ
SZ
IC501
M35013-050SP
D501 1SS252 /1SS131
L501 100μH
X501 17.734475MHz
R501 1/10W 0
C503 16V 100μ
R516 100K 1/10W
D502
R518 F-5.6K 1/10W
R519 F-3.9K 1/10W
C513 50V 1μ
C514 50V 4.7μ
C511 K-8200
C512 K-8200
R520 22K 1/10W
Q506 2SC3052-G
L502 15μH
R521 3.9K 1/10W
C530 K-1500
R522 22K 1/10W
Q507 2SC3052-G
R502 330
R512 680 1/10W
R509 10K 1/10W
R511 F-1.1K 1/10W
C510 Z-.01
R510 1/10W 390
A
L504 27μH
C507 47 SL
R503 12K 1/10W
Q505
Q503
R504 2.2K 1/10W
R505 33K 1/10W
Q504
R508 12K 1/10W
Q502
R513 8.2K 1/10W
R514 680 1/10W
C508 K-.047 50V/25V
L503 100μH
C506 6.3V 100μ
R506 10K 1/10W
C509 Z-.01
R507 18K 1/10W
R515 220 1/10W
Q501

All NPN transistors are 2SC3052-E·F
unless otherwise specified.
All PNP transistors are 2SA1235-E·F
unless otherwise specified.

IS
22K
22K
DTC124EK


1
2
3
4
5
6
7
8
A
B
C
D
E
TO Y/C-SUB
D-OUT
D-FG
1/2 VCC
PG-OUT
A-FF
4.43MHz
TO MC
A-FF
D-OUT
PG-MM
CP-FG2
CP-FG1
CTL-F
SI
Q-STOP
VSYNC
SW5
CP-OUT
SL
CTL
D-OUT
PB-START
D-FF
CTL(+)
CTL(-)
IC4A1
LA6324N
Q4A1
Q4A2
Q4A3
2SC3052-G
Q4A4
2SA1235-F
Q4A5
Q4A6
TP4C0
TP4F1
TP4G1
TP4C2
TP4C1
TP4D1
TP4D2
Y-FG
SW5
FSP/CDD
PCTL
RCK
CP-AFC
CP-AFC
D-AFC
D-APC
HSWA
HSWV
VSYNC
SI
CPFGIN
VSS
PGMM
VDD
CTLAMP OUT
GND
CTLA
CI
CTLS
RCTL1
RCTL2
TPZ
CIF
CIR
VRI
YFG
YPG
IC4
MN6
MSB5
D4A1
1SS252
/1SS131
D4A0
1SS252
/1SS131
R4A0 56K 1/10W
R4A1 4.7K 1/10W
R4A2 27K 1/10W
R4A3 F-1.2K 1/10W
R4A4 F-1.2K 1/10W
R4A5 10K 1/10W
R4A6 18K 1/10W
R4A7 22K 1/10W
R4A9 120K 1/10W
R4B0 1K 1/10W
R4B1 120K 1/10W
R4B2 3.9K 1/10W
R4B3 56K 1/10W
R4B4 270K 1/10W
R4B5 8.2K 1/10W
R4B6 33K 1/10W
R4B7 100K 1/10W
R4B8 330K 1/10W
R4B9 6.8K 1/10W
R4C0 22K 1/10W
R4C1 2.2K 1/10W
R4C2 1M 1/10W
R4C3 100K
R4C4 47K
R4C5 39K 1/10W
R4C6 150K 1/10W
R4C7 150K 1/10W
R4C8 220K 1/10W
R4C9 10K 1/10W
R4D0 100K 1/10W
R4D1 39K 1/10W
R4D2 220K 1/10W
R4D3 56K 1/10W
R4D4 33K 1/10W
R4D5 330K 1/10W
R4D6 1K 1/10W
R4D8 18K 1/10W
R4D9 10K 1/10W
R4E0 1.2K 1/10W
R4E1 100K 1/10W
C4A0 6.3V 47μ
C4A2 K-1000
C4A3 180 SL
C4A4 K-1000
C4A5 50V 3.3μ
C4A6 50V 1μ NP
C4A7 50V 10μ
C4A8 6.3V 47μ
C4A9 6.3V 47μ
C4B0 K-5600
C4B1 K-5600
C4B2 6.3V 47μ
C4B3 K-8200
C4B4 6.3V 47μ
C4B5 K-1000
C4B6 K-.056 25V
C4B8 25V K-.068
C4B9 K-.1 25V
C4C0 K-3300
C4C1 50V 1μ
C4C3 .068 MMF
C4C4 Z-.01
C4C5 Z-.022
C4C6 6.3V 47μ
C4C7 50V 1μ
C4C8 50V 1μ
C4C9 K-3900
C4D0 K-1500
C4D1 16V 22μ
C4D2 16V 22μ
C4D3 K-.039 50V/25V
C4D4 6.3V 47μ
SL
SW5
1/2VCC
D-FG
Y-FG
CTL-F
SI
Q-STOP
VSYNC
CTL
D-OUT
PB-START
CTL(+)
D-FF
CTL(-)
PG-MM

All NPN transistors are 2SC3052-E·F unless otherwise specified.
All PNP transistors are 2SA1235-E·F unless otherwise specified.


6
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10
11
12
13
TO Y/C-SUB
D-OUT
D-FG
1/2 VCC
PG-OUT
A-FF
4.43MHz
⚠ PCB-MAIN (SERVO)
PCB-MAIN (POWER)
PCB-POWER-SUB
TP4C2 PLAY
TP4C1 PLAY
TP4D1 PLAY
TP4D2 PLAY
TP4F1 PLAY
⑬PLAY
⑭PLAY
Q4A2
Q4A3 2SC3052-G
Q4A4 2SA1235-F
Q4A6
IC4A0 MN67492 MSB5
IC4A0
FSP/CDD
PCTL
RCK
CP-APC
CP-AFC
D-AFC
D-APC
HSWA
HSWV
VSYNC
SI
CPFGIN
VSS
PGMM
VDD
CTLAMP OUT
GND
CTLA
CI
CTLS
RCTL1
RCTL2
TPZ
CIF
CIR
VRI
YFG
YPG
Y-FG
SW5
TP4F1
TP4M1
TP4G1
T901
F901
F902
F903
J1
L901
R901
C901
C902
C903
C904
AC-LV-1
AC-LV-2
AC-1
AC-2
GND
AC45V
AC-HV-1
AC-HV-2
PD
MD
C911 K-4700
C912 K-4700
D902 S4DL-6140
D903 S4DL-6140
D906 S4DL-6140
D907 S4DL-6140
Q907 2SA933S-R
Q908 2SA933S-R.S /2SA1309A-R.S
Q901 2SA1619A -Q.R.S
D909 EH012V1
D910 EH012V1
D911 HZ30-2
R911 6.8 1/4W

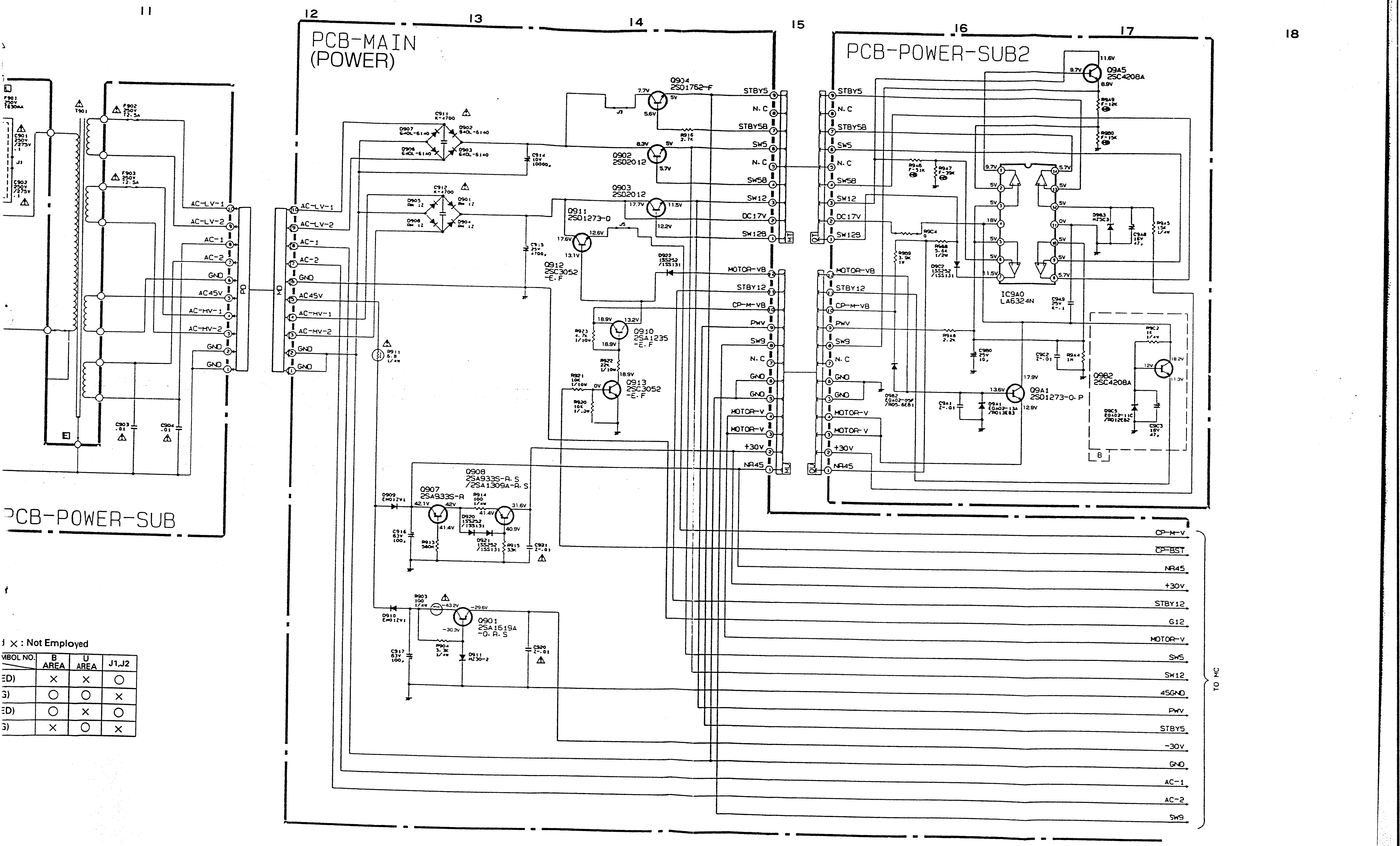
Drum Servo System

Capstan Servo System

○ : Employed × : Not Employed

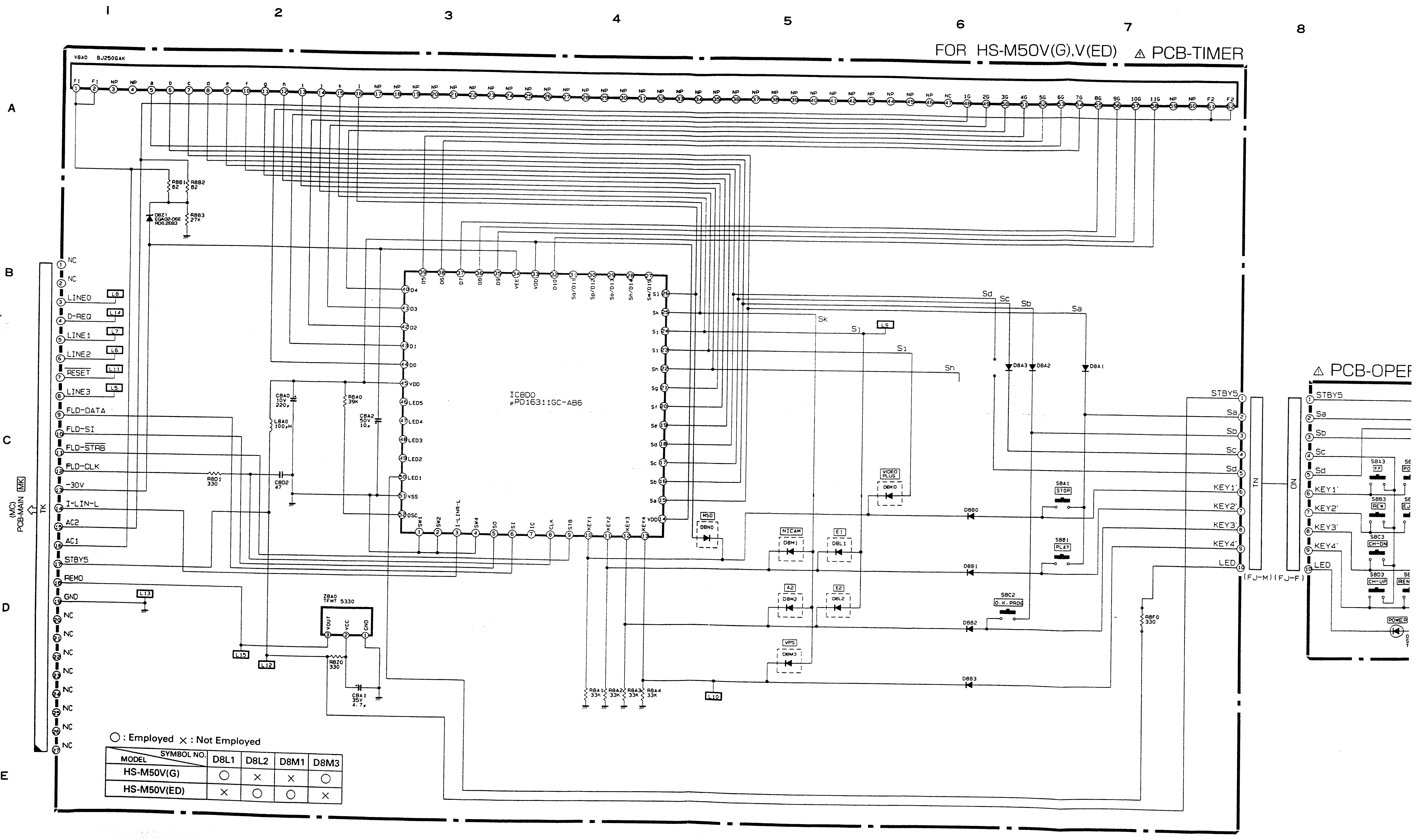
MODEL / SYMBOL NO.	B AREA	U AREA	J1,J2
HS-M50V(ED)	×	×	○
HS-M50V(G)	○	○	×
HS-M60V(ED)	○	×	○
HS-M60V(G)	×	○	×

pecified.
pecified.


11
12
13
14
15
16
17
18
PCB-MAIN (POWER)
PCB-POWER-SUB2
PCB-POWER-SUB
T901
F902 250V T2.5A
F903 250V T2.5A
F901 250V T630mA
C901 250V /275V
C902 250V /275V
J1
C903 .01
C904 .01
AC-LV-1
AC-LV-2
AC-1
AC-2
GND
AC45V
AC-HV-1
AC-HV-2
PO
MO
C911 K-4700
C912 K-4700
D907 G4OL-6140
D902 G4OL-6140
D906 G4OL-6140
D903 G4OL-6140
D905 RM 1Z
D901 RM 1Z
D908 RM 1Z
D904 RM 1Z
C914 10V 10000μ
C915 25V 4700μ
Q904 2SD1762-F
Q902 2SD2012
Q903 2SD2012
Q911 2SD1273-Q
Q912 2SC3052 -E.F
Q910 2SA1235 -E.F
Q913 2SC3052 -E.F
R916 2.7K
R923 4.7K 1/10W
R922 22K 1/10W
R921 10K 1/10W
R920 10K 1/10W
D922 1SS252 /1SS131
R911 6.8 1/4W
Q908 2SA933S-R.S /2SA1309A-R.S
Q907 2SA933S-R
D909 EM01ZV1
R914 100 1/4W
D920 1SS252 /1SS131
D921 1SS252 /1SS131
C916 63V 100μ
R913 560K
R915 33K
C921 Z-.01
D910 EM01ZV1
R903 100 1/4W
Q901 2SA1519A -Q.R.S
C917 63V 100μ
R904 3.3K 1/4W
D911 HZ30-2
C920 Z-.01
7.7V
5.6V
5V
8.3V
5.7V
17.7V
11.5V
12.2V
12.6V
17.6V
13.1V
18.9V
13.2V
0V
42.1V
42V
41.4V
31.6V
40.9V
-43.2V
-29.6V
-30.3V
STBY5
N.C
STBY58
SW5
SW58
SW12
DC17V
SW128
MOTOR-V8
STBY12
CP-M-V8
PWV
SW9
GND
MOTOR-V
+30V
NR45
MT
MU
QT
QU
Q9A5 2SC4208A
11.6V
9.7V
8.9V
R949 F-12K
R980 F-15K
R946 F-51K
R947 F-39K
R9C4 0
R948 5.6K 1/2W
R969 3.9K 1W
D9C2 1SS252 /1SS131
D983 HZ5C3
C948 16V 47μ
R945 15K 1/4W
IC9A0 LA6324N
C949 25V K-.1
R9A8 2.2K
C980 25V 10μ
C9C2 Z-.01
R9A4 1M
D982 EQA02-05F /R05-6E81
C9A1 Z-.01
D9A1 EQA02-13A /R013E83
Q9A1 2SD1273-Q.P
13.6V
17.9V
12.9V
Q982 2SC4208A
R9C2 1K 1/4W
12V
18.2V
11.3V
D9C5 EQA02-11C /R012E82
C9C3 16V 47μ
B
18V
CP-M-V
CP-BST
NR45
+30V
STBY12
G12
MOTOR-V
SW5
SW12
45GND
PWV
STBY5
-30V
GND
AC-1
AC-2
SW9
TO MC

d × : Not Employed

MBOL NO.	B AREA	U AREA	J1,J2
ED)	×	×	○
G)	○	○	×
ED)	○	×	○
G)	×	○	×


1
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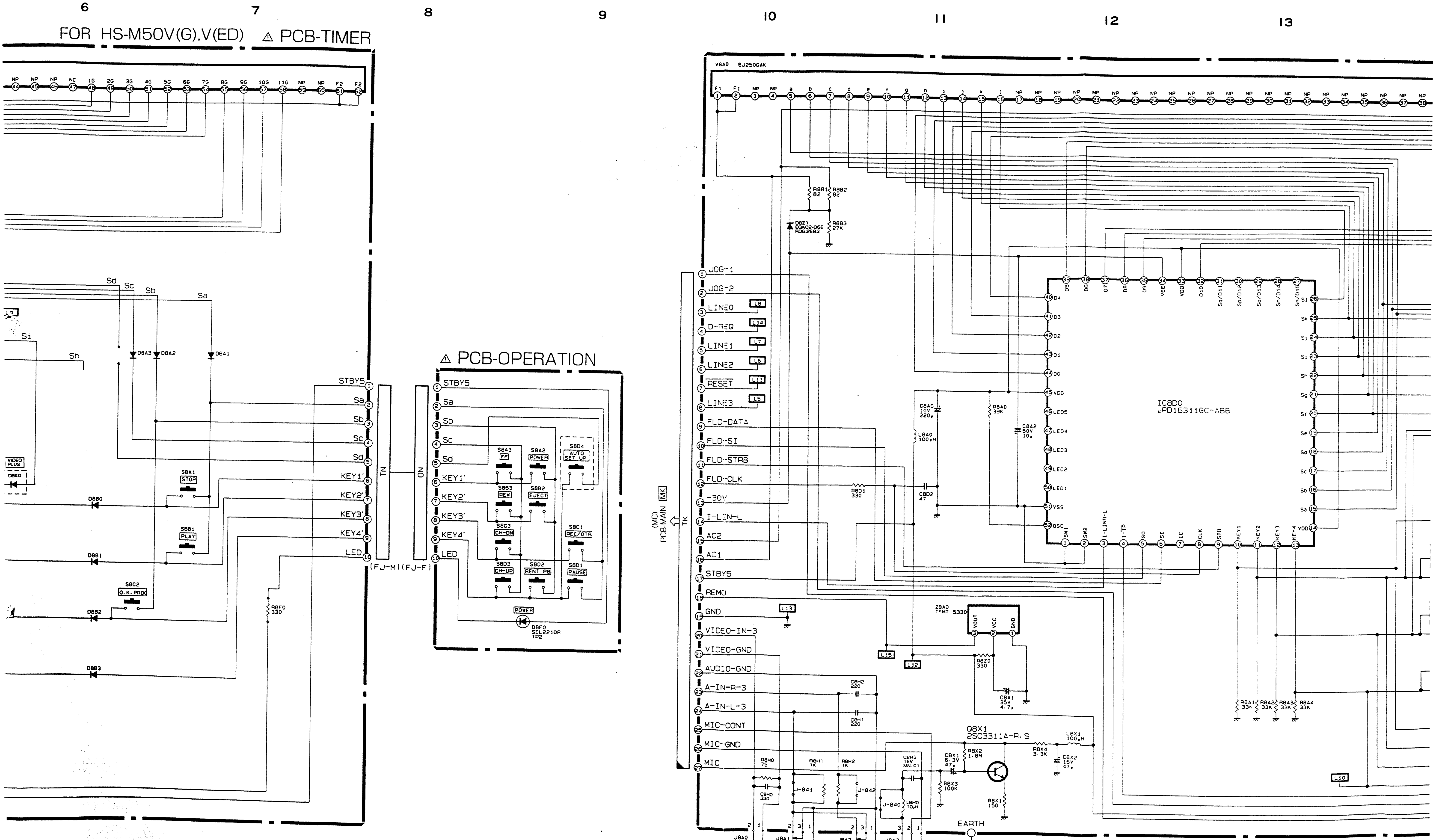
A
B
C
D
E
FOR HS-M50V(G),V(ED) ⚠ PCB-TIMER
V8A0 BJ250GAK
IC8D0
µPD16311GC-AB6
R8B1 82
R8B2 82
R8B3 27K
D8Z1 EGA02-06E RD6.2EB3
R8A0 39K
C8A0 10V 220µ
L8A0 100µH
C8A2 50V 10µ
R8D1 330
C8D2 47
Z8A0 TFMT 5330
VOUT
VCC
GND
R8Z0 330
C8A1 35V 4.7µ
R8A1 33K
R8A2 33K
R8A3 33K
R8A4 33K
R8F0 330
D8A1
D8A2
D8A3
D8B0
D8B1
D8B2
D8B3
D8K0
D8N0
D8M1
D8M2
D8M3
D8L1
D8L2
VIDEO PLUS
M50
NICAM
E1
A2
E2
VPS
S8A1 STOP
S8B1 PLAY
S8C2 O.K.PROG
L8
L14
L7
L6
L11
L5
L13
L15
L12
L10
L9
NC
LINE0
D-REQ
LINE1
LINE2
RESET
LINE3
FLD-DATA
FLD-SI
FLD-STRB
FLD-CLK
-30V
I-LIN-L
AC2
AC1
STBY5
REMO
GND
TK
(MC) PCB-MAIN MK
STBY5
Sa
Sb
Sc
Sd
KEY1'
KEY2'
KEY3'
KEY4'
LED
TN
ON
(FJ-M)
(FJ-F)
⚠ PCB-OPER
S8A3 FF
S8B3 REW
S8C3 CH-DN
S8D3 CH-UP
POWER

○ : Employed × : Not Employed

MODEL / SYMBOL NO.	D8L1	D8L2	D8M1	D8M3
HS-M50V(G)	○	×	×	○
HS-M50V(ED)	×	○	○	×

All diodes are 1SS252/1SS131 unless otherwise specified


6
7
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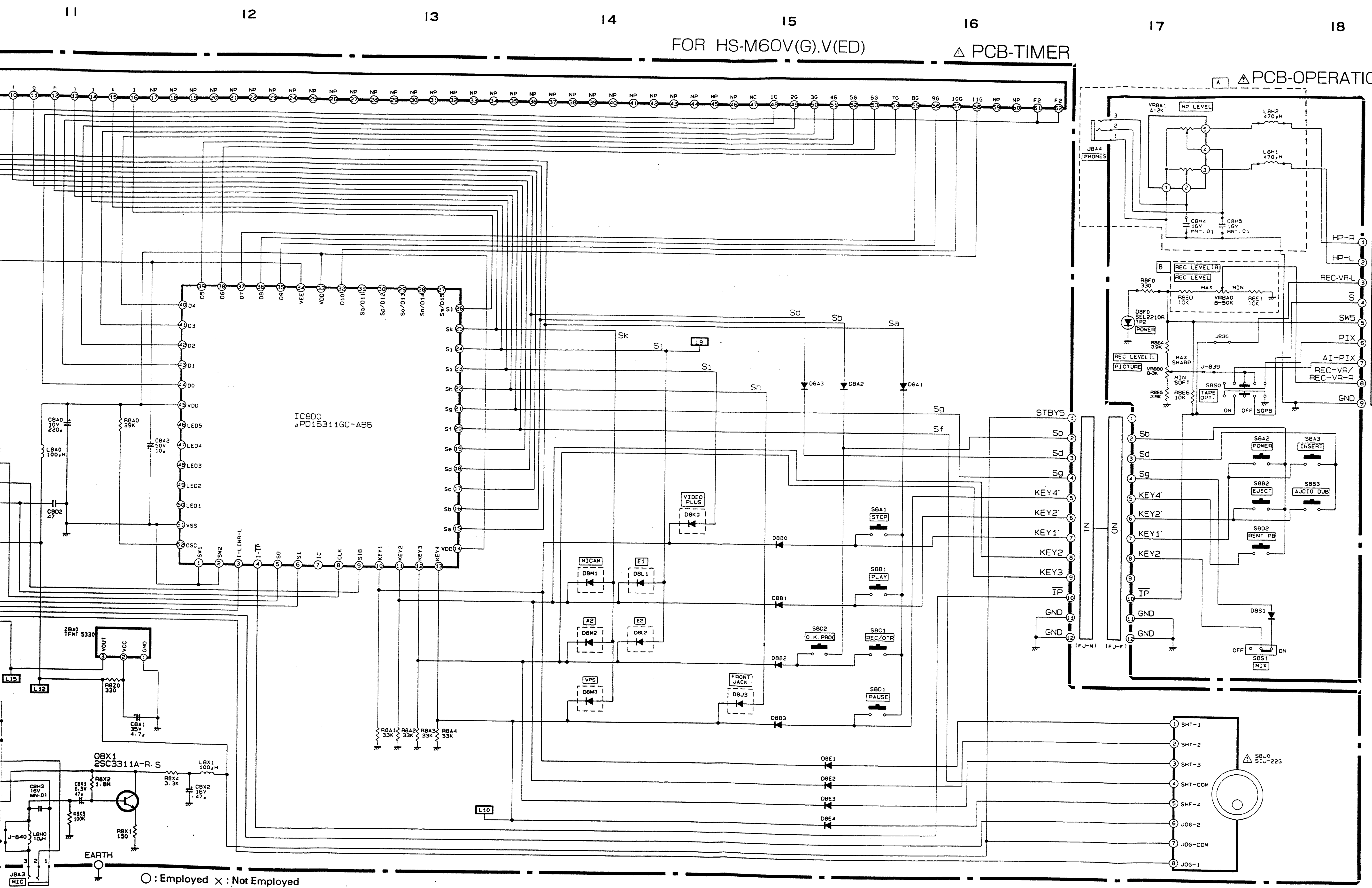
10
11
12
13
FOR HS-M50V(G),V(ED)
⚠ PCB-TIMER
⚠ PCB-OPERATION
V8A0 BJ250GAK
IC8D0
μPD16311GC-AB6
(MC)
PCB-MAIN MK
TK
TN
ON
(FJ-M) (FJ-F)
STBY5
Sa
Sb
Sc
Sd
KEY1'
KEY2'
KEY3'
KEY4'
LED
S8A1 STOP
S8B1 PLAY
S8C2 O.K. PROG
S8A3 FF
S8A2 POWER
S8D4 AUTO SET UP
S8B3 REW
S8B2 EJECT
S8C3 CH-DN
S8C1 REC/OTR
S8D3 CH-UP
S8D2 RENT PB
S8D1 PAUSE
POWER
D8F0 SEL2210R TP2
D8A1
D8A2
D8A3
D8B0
D8B1
D8B2
D8B3
R8F0 330
VIDEO PLUS
D8K0
JOG-1
JOG-2
LINE0
D-REQ
LINE1
LINE2
RESET
LINE3
FLD-DATA
FLD-SI
FLD-STRB
FLD-CLK
-30V
I-LIN-L
AC2
AC1
STBY5
REMO
GND
VIDEO-IN-3
VIDEO-GND
AUDIO-GND
A-IN-R-3
A-IN-L-3
MIC-CONT
MIC-GND
MIC
R8B1 82
R8B2 82
R8B3 27K
D8Z1 EQA02-06E RD6.2EB3
C8A0 10V 220μ
L8A0 100μH
R8A0 39K
C8A2 50V 10μ
R8D1 330
C8D2 47
Z8A0 TFMT 5330
VOUT
VCC
GND
R8Z0 330
C8Z1 35V 4.7μ
C8H2 220
C8H1 220
Q8X1 2SC3311A-R, S
R8X2 1.8M
C8X1 6.3V 47μ
R8X3 100K
R8X1 150
R8X4 3.3K
L8X1 100μH
C8X2 16V 47μ
R8H0 75
C8H0 330
R8H1 1K
R8H2 1K
C8H3 16V MN.01
L8H0 10μH
J-841
J-842
J-840
J8A0 V-IN
J8A1 A-IN-L
J8A2 A-IN-R
J8A3 MIC
EARTH
R8A1 33K
R8A2 33K
R8A3 33K
R8A4 33K
L5
L6
L7
L8
L10
L11
L12
L13
L14
L15
VDD
VSS
OSC
VEE
LED1
LED2
LED3
LED4
LED5
KEY1
KEY2
KEY3
KEY4
SW1
SW2
I-LINR-L
I-TP
SO
SI
IC
CLK
STB

2/1SS131
ified

○ : Employed × : Not Employed

SYMBOL NO. / MODEL	D8L2	D8E4	D8E5	VR8B0	D8L1	D8M1	D8M3	A AREA	B AREA
HS-M60V(G)	×	10K	10K	B-50K	○	×	○	○	○
HS-M60V(ED)	○	3.9K	3.9K	B-3K	×	○	×	×	×

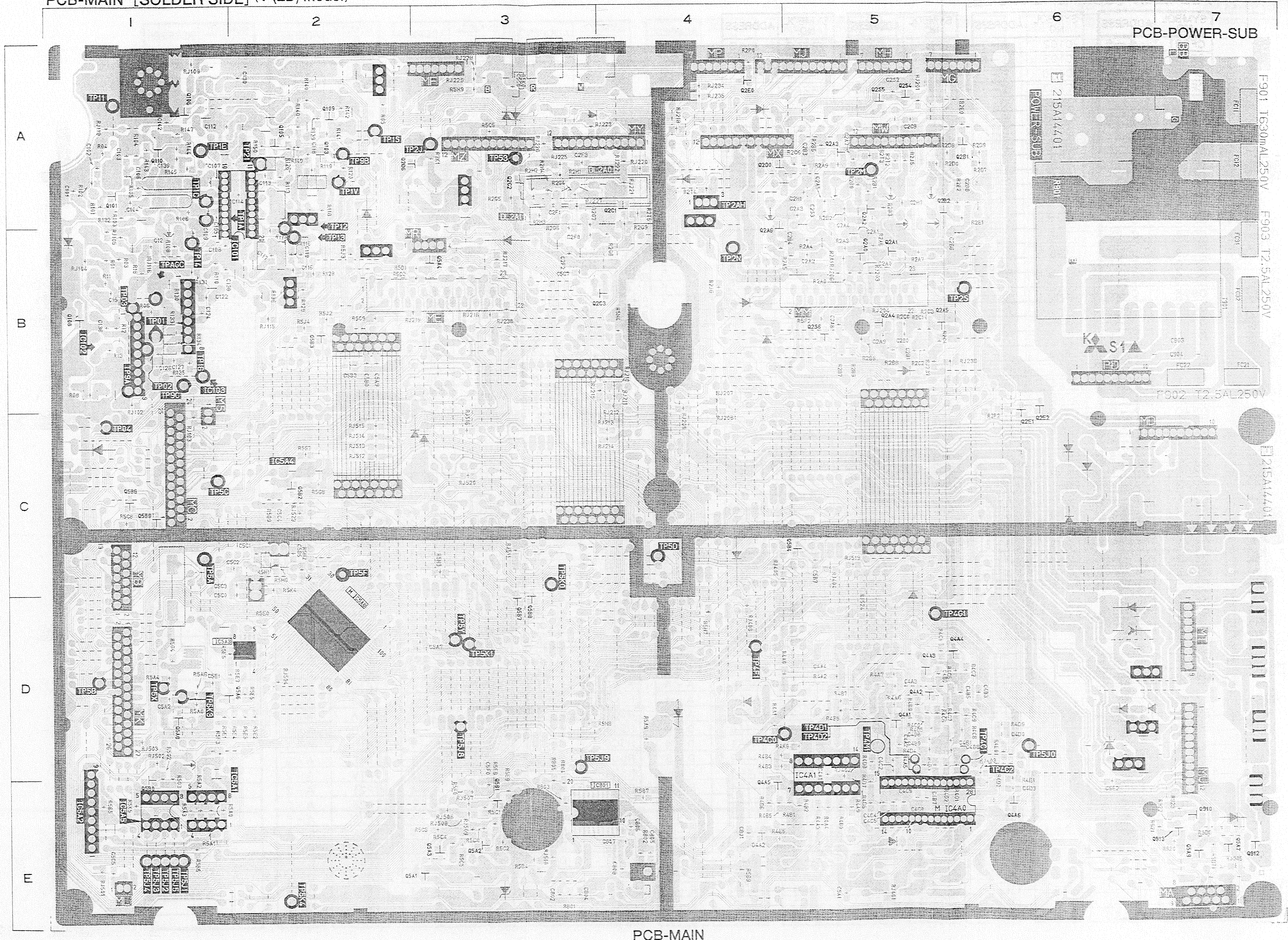

11
12
13
14
15
16
17
18
FOR HS-M60V(G),V(ED)
⚠ PCB-TIMER
A ⚠ PCB-OPERATION
IC8D0
μPD16311GC-AB6
Z8A0
TFMT 5330
Q8X1
2SC3311A-R.S
EARTH
J8A3
MIC
J8A4
PHONES
VR8A4 4-2K
HP LEVEL
L8H2 470μH
L8H1 470μH
C8H4 16V MN-.01
C8H5 16V MN-.01
B REC LEVEL(R)
REC LEVEL
VR8A0 B-50K
D8F0 SEL2210R TP2
POWER
REC LEVEL(L)
PICTURE
VR8B0 8-3K
MAX SHARP
MIN SOFT
S8S0
TAPE OPT.
SQPB
HP-R
HP-L
REC-VR-L
SI
SW5
PIX
AI-PIX
REC-VR/ REC-VR-R
GND
OA
PCB-MAIN MA
STBY5
Sb
Sd
Sg
KEY4'
KEY2'
KEY1'
KEY2
KEY3
IP
GND
(FJ-H)
(FJ-F)
TN
ON
S8A2 POWER
S8A3 INSERT
S8B2 EJECT
S8B3 AUDIO DUB
S8D2 RENT PB
D8S1
S8S1 MIX
OFF
ON
S8A1 STOP
S8B1 PLAY
S8C2 O.K. PROG
S8C1 REC/OTR
S8D1 PAUSE
VIDEO PLUS
D8K0
NICAM
D8M1
E1
D8L1
A2
D8M2
E2
D8L2
VPS
D8M3
FRONT JACK
D8J3
D8A1
D8A2
D8A3
D8B0
D8B1
D8B2
D8B3
D8E1
D8E2
D8E3
D8E4
SHT-1
SHT-2
SHT-3
SHT-COM
SHF-4
JOG-2
JOG-COM
JOG-1
⚠ S8J0 SIJ-22G
L10
L12
L15

○ : Employed × : Not Employed

MODEL / SYMBOL NO.	D8L2	D8E4	D8E5	VR8B0	D8L1	D8M1	D8M3	A AREA	B AREA	C8H2,C8H3 C8H0,C8H1	L8H0 R8H1,R8H2	J842 J840,J841	J836	J839
HS-M60V(G)	×	10K	10K	B-50K	○	×	○	○	○	○	○	×	○	×
HS-M60V(ED)	○	3.9K	3.9K	B-3K	×	○	×	×	×	×	×	○	×	○

All diodes are 1SS252/1SS131
unless otherwise specified

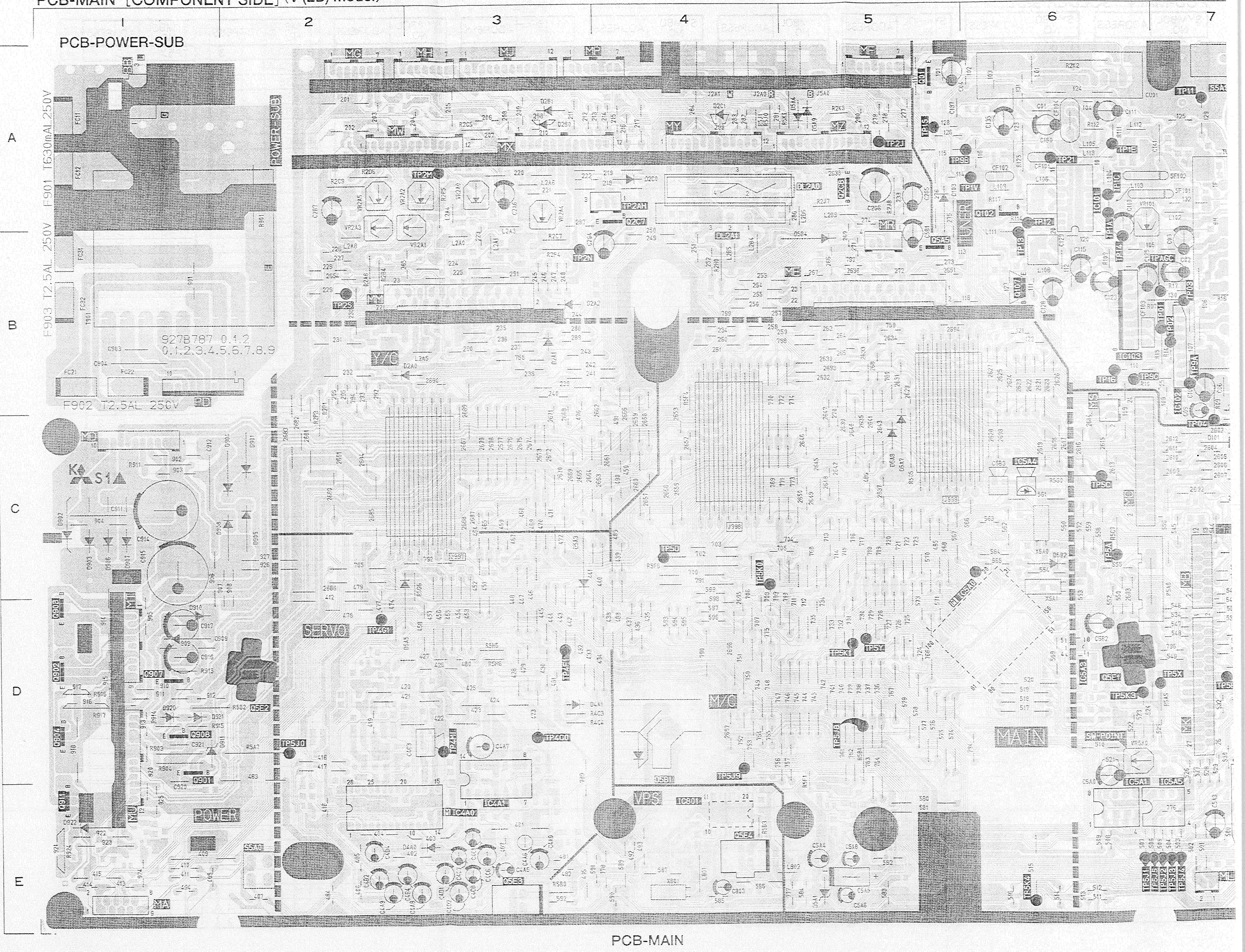
PCB-MAIN [SOLDER SIDE] (V (ED) model)

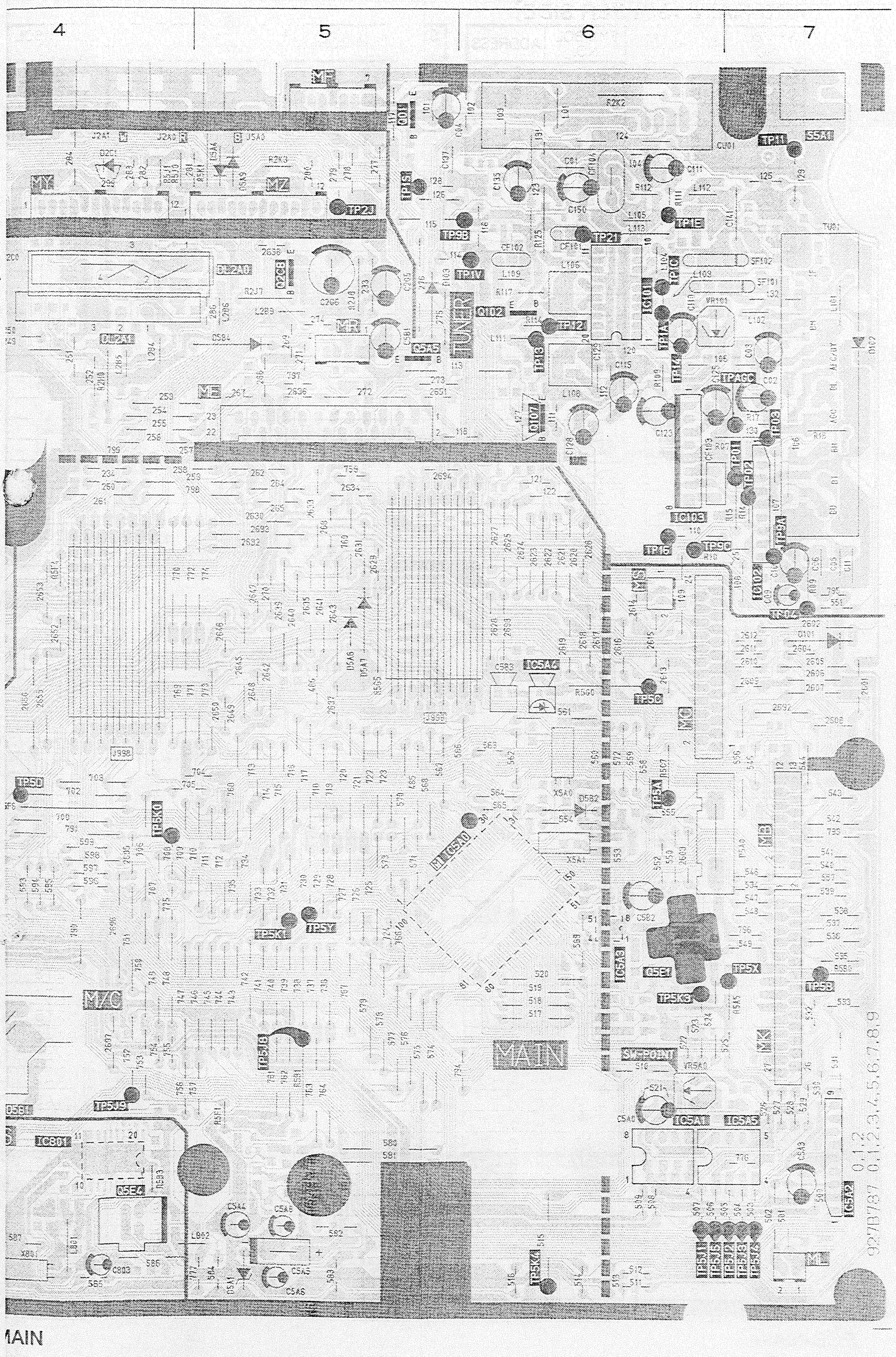

1
2
3
4
5
6
7
A
B
C
D
E
PCB-POWER-SUB
POWER-SUB
215A14401
F901 T630mAL250V
F903 T2.5AL250V
F902 T2.5AL250V
S1
IC5A4
IC4A1
IC4A0
IC891
IC103
IC102
IC101
PCB-MAIN

PCB-MAIN [SOLDER SIDE]

SYMBOL NO.	ADDRESS
C12	B – 1
C15	B – 1
C101	A – 1
C102	A – 1
C103	A – 1
C104	A – 1
C105	A – 1
C106	A – 1
C107	A – 1
C108	B – 1
C109	B – 1
C112	A – 1
C113	A – 2
C114	A – 2
C116	B – 2
C117	B – 2
C118	A – 2
C118	B – 2
C122	B – 1
C122	B – 1
C126	B – 1
C127	B – 1
C130	A – 2
C136	B – 1
C138	B – 1
C139	A – 1
C142	A – 1
C801	E – 4
C802	E – 3
C804	E – 3
C805	E – 4
C806	E – 4
C807	E – 4
C808	E – 4
C903	B – 7
C904	B – 7
C2A0	B – 5
C2A1	B – 5
C2A2	B – 5
C2A3	A – 5
C2A4	B – 5
C2A5	A – 5
C2A7	A – 5
C2A8	B – 5
C2A9	B – 5
C2B0	B – 5
C2B1	B – 5
C2B3	A – 5
C2B4	B – 5
C2B6	B – 5
C2B8	A – 5
C2C9	A – 5
C2F0	B – 3
C2F1	A – 3
C2F2	B – 3
C2F3	A – 3
C2H0	A – 5
C2H1	A – 5
C2S2	A – 5
C2S3	A – 5
C4A1	E – 5
C4A2	D – 5
C4A3	D – 5
C4A4	D – 5
C4B0	D – 5
C4B1	D – 5
C4B3	D – 6
C4B5	D – 5
C4B6	D – 5
C4B7	E – 5
C4B8	D – 5
C4B9	D – 5
C4C0	E – 5
C4C2	E – 5
C4C4	E – 5
C4C5	E – 5
C4C9	E – 5
C4D0	D – 6
C4D3	E – 6
C5A1	E – 5
C5A2	D – 1
C5A7	D – 3
C5A9	B – 2
C5B0	B – 2
C5B5	C – 2
C5B7	C – 5
C5C0	D – 1
C5C1	C – 2
C5C2	C – 2
C5C3	C – 1
C5C4	C – 2
C5C5	E – 1
C5C6	A – 3
C5C7	B – 3
C5E1	D – 1
C5E2	E – 6
C5F0	E – 3
D4A2	E – 4
D5B3	B – 2
DL2A0	A – 3
DL2A1	A – 3
F901	A – 7
F902	B – 7
F903	B – 7
FC11	A – 7
FC12	A – 7
FC21	B – 7
FC22	B – 7
FC31	B – 7
FC32	B – 7
IC101	A – 2
IC102	B – 1
IC103	B – 1
IC801	E – 3
IC4A0	E – 5
IC4A1	E – 5
IC5A0	D – 2
IC5A1	E – 1
IC5A2	E – 1
IC5A3	D – 2
IC5A4	C – 2
IC5A5	E – 1
Q101	A – 1
Q103	A – 2
Q105	A – 2
Q106	A – 1
Q108	B – 1
Q109	A – 2
Q110	A – 1
Q910	E – 7
Q912	E – 7
Q913	E – 7
Q2A0	B – 5
Q2A1	B – 5
Q2A2	A – 5
Q2A3	A – 5
Q2A4	B – 5
Q2A5	B – 5
Q2A6	B – 4
Q2B1	A – 5
Q2B2	A – 5
Q2C1	A – 4
Q2C2	A – 3
Q2C3	B – 3
Q2D0	A – 4
Q2D6	A – 3
Q2E0	A – 4
Q2E1	C – 6
Q2E2	C – 6
Q2S4	A – 5
Q2S5	A – 5
Q2S6	B – 5
Q4A1	D – 5
Q4A2	D – 5
Q4A3	D – 5
Q4A4	D – 5
Q4A5	E – 4
Q4A6	E – 6
Q5A1	E – 3
Q5A2	E – 3
Q5A3	E – 3
Q5A4	B – 3
Q5A6	D – 1
Q5A7	E – 7
Q5A8	D – 1
Q5A9	E – 7
Q5B0	E – 1
Q5B1	E – 3
Q5B2	C – 2
Q5B3	B – 2
Q5B4	C – 5
Q5B6	C – 1
Q5B7	D – 3
Q5B8	D – 3
Q5B9	C – 1
R01	B – 1
R03	B – 1
R04	A – 1
R05	A – 2
R06	B – 1
R08	B – 1
R11	B – 1
R12	B – 1
R13	B – 1
R16	B – 1
R101	A – 1
R102	A – 1
R103	A – 1
R104	A – 1
R105	A – 1
R106	A – 1
R108	B – 1
R110	B – 1
R113	A – 2
R115	B – 2
R116	B – 2
R118	A – 2
R119	A – 2
R120	A – 2
R126	A – 2
R128	B – 2
R129	B – 2
R130	B – 1
R131	B – 1
R132	A – 1
R133	B – 1
R134	B – 1
R135	B – 1
R136	B – 2
R139	A – 2
R140	A – 2
R141	A – 2
R142	A – 2
R143	A – 1
R144	A – 1
R145	A – 1
R147	A – 1
R148	A – 2
R149	A – 2
R150	A – 2
R801	E – 3
R802	E – 4
R803	E – 3
R804	E – 3
R805	E – 3
R901	A – 6
R920	E – 7
R921	E – 6
R922	E – 6
R923	E – 7
R2A0	B – 5
R2A1	B – 5
R2A3	B – 5
R2A4	B – 5
R2A5	B – 5
R2A6	B – 5
R2A7	B – 5
R2A9	A – 5
R2B0	A – 5
R2B1	A – 5
R2B2	A – 5
R2B3	A – 5
R2B5	A – 5
R2B6	B – 5
R2B7	B – 5
R2B8	B – 5
R2B9	B – 5
R2C0	B – 5
R2C1	B – 5
R2C2	B – 5
R2C3	B – 5
R2C4	B – 5
R2C6	A – 5
R2D0	A – 5
R2D7	A – 6
R2D8	A – 5
R2D9	A – 6
R2E0	A – 5
R2E1	B – 5
R2E2	A – 5
R2G4	A – 3
R2G5	A – 3
R2G6	B – 3
R2G7	A – 3
R2G8	B – 4
R2G9	B – 4
R2H1	A – 3
R2H2	A – 3
R2H3	A – 3
R2H4	A – 3
R2J5	A – 5
R2J6	B – 4
R2K1	A – 3
R2P0	A – 4
R2P2	C – 6
R2T2	A – 5
R2T3	A – 5
R2T4	A – 4
R2T5	A – 4
R4A0	D – 4
R4A1	D – 4
R4A2	D – 5
R4A3	E – 5
R4A4	E – 5
R4A6	D – 5
R4A7	D – 5
R4A8	D – 4
R4A9	D – 5
R4A9	E – 5
R4B0	E – 5
R4B1	E – 4
R4B2	E – 5
R4B3	D – 4
R4B4	D – 4
R4B5	E – 4
R4B6	E – 4
R4B7	D – 5
R4B8	D – 5
R4B9	D – 5
R4C0	D – 5
R4C1	D – 5
R4C2	D – 5
R4C5	D – 5
R4C6	D – 5
R4C7	D – 5
R4C8	D – 5
R4C9	D – 5
R4D0	E – 6
R4D1	E – 5
R4D2	E – 5
R4D3	D – 5
R4D4	D – 5
R4D5	D – 5
R4D6	E – 5
R4D7	E – 5
R4D8	D – 5
R4D9	D – 6
R4E0	D – 6
R4E1	E – 6
R4E5	E – 4
R5A0	E – 1
R5A1	E – 1
R5A2	E – 1
R5A3	E – 1
R5A4	D – 1
R5A6	D – 1
R5A8	D – 1
R5A9	D – 4
R5B4	E – 3
R5B5	E – 1
R5B6	E – 1
R5B7	E – 4
R5B9	E – 4
R5C0	E – 3
R5C1	E – 3
R5C2	E – 3
R5C3	E – 3
R5C4	E – 3
R5C5	E – 3
R5C6	A – 3
R5C8	C – 1
R5C9	B – 2
R5D1	B – 2
R5D2	B – 2
R5D6	E – 7
R5D7	E – 7
R5E0	D – 2
R5E1	D – 1
R5E2	D – 2
R5E3	D – 2
R5E4	D – 1
R5E5	D – 1
R5E6	D – 2
R5E7	D – 1
R5E8	E – 3
R5E9	E – 3
R5F0	E – 3
R5F2	B – 5
R5F3	D – 1
R5G2	E – 1
R5G3	E – 1
R5G4	D – 1
R5G7	C – 2
R5G8	C – 2
R5G9	C – 2
R5H0	C – 2
R5H1	C – 2
R5H2	C – 2
R5H3	C – 3
R5H4	B – 4
R5H7	D – 4
R5H8	D – 3
R5H9	A – 3
R5J2	B – 2
R5J3	B – 2
R5J4	B – 2
R5K0	A – 3
R5K4	C – 2
R5K5	E – 1
RJ102	C – 1
RJ103	C – 1
RJ104	B – 1
RJ105	B – 1
RJ109	A – 1
RJ115	B – 2
RJ116	B – 1
RJ119	A – 1
RJ201	A – 5
RJ203	B – 5
RJ204	B – 5
RJ206	B – 5
RJ207	B – 4
RJ208	C – 4
RJ209	C – 4
RJ210	B – 4
RJ211	B – 4
RJ212	C – 4
RJ213	C – 4
RJ214	C – 4
RJ215	B – 4
RJ216	B – 3
RJ217	B – 3
RJ218	A – 4
RJ219	B – 2
RJ220	A – 4
RJ221	A – 4
RJ222	A – 4
RJ223	A – 3
RJ225	A – 3
RJ226	A – 3
RJ227	A – 3
RJ228	A – 3
RJ229	A – 3
RJ234	A – 4
RJ235	A – 4
RJ236	B – 5
RJ237	B – 5
RJ238	B – 3
RJ401	E – 5
RJ402	E – 5
RJ403	E – 6
RJ404	C – 5
RJ405	C – 4
RJ405	D – 4
RJ501	E – 1
RJ502	D – 1
RJ503	D – 1
RJ504	D – 2
RJ505	E – 7
RJ506	E – 3
RJ507	E – 3
RJ508	E – 3
RJ509	E – 3
RJ511	C – 3
RJ512	C – 2
RJ513	C – 2
RJ514	C – 2
RJ515	C – 2
RJ516	C – 3
RJ518	E – 3
RJ519	C – 5
RJ520	C – 3
RJ523	C – 2
RJ524	D – 5
T901	B – 7
TP01	B – 1
TP02	B – 1
TP03	B – 1
TP04	C – 1
TP11	A – 1
TP12	B – 2
TP13	B – 2
TP14	B – 1
TP16	B – 1
TP53	A – 3
TP1A	A – 1
TP1C	A – 1
TP1E	A – 1
TP1S	A – 2
TP1V	A – 2
TP21	A – 2
TP2J	A – 3
TP2M	A – 5
TP2N	B – 4
TP2S	B – 5
TP5A	C – 1
TP5B	D – 1
TP5C	C – 1
TP5D	C – 4
TP5F	C – 2
TP5X	D – 1
TP5Y	D – 3
TP9A	B – 1
TP9B	A – 2
TP9C	B – 1
TP2AH	A – 4
TP4C0	D – 4
TP4C1	D – 5
TP4C2	E – 5
TP4D1	D – 5
TP4D2	D – 5
TP4F1	D – 4
TP4G1	D – 5
TP4M1	D – 5
TP5J0	D – 6
TP5J1	E – 1
TP5J2	E – 1
TP5J3	E – 1
TP5J4	E – 1
TP5J5	E – 1
TP5J8	D – 3
TP5J9	D – 3
TP5K0	C – 3
TP5K1	D – 3
TP5K3	D – 1
TP5K4	E – 2
TPAGC	B – 1

PCB-MAIN [COMPONENT SIDE] (V (ED) model)

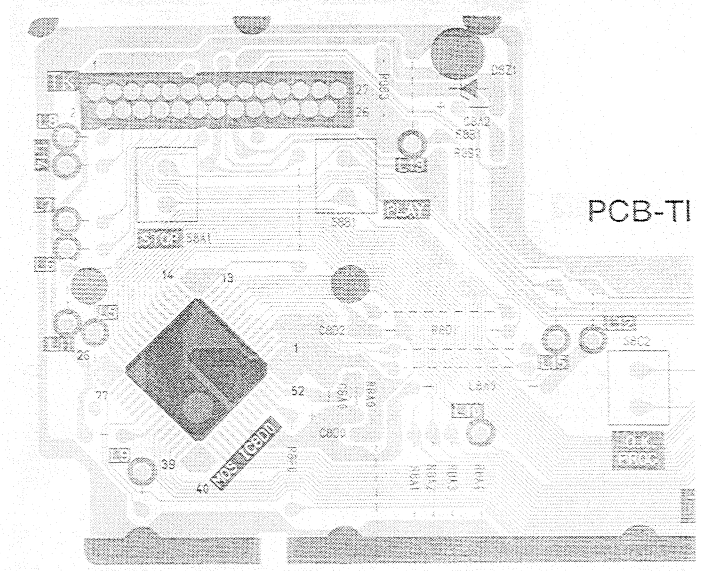

1
2
3
4
5
6
7
A
B
C
D
E
PCB-POWER-SUB
POWER-SUB
F901 T630mAL 250V
F903 T2.5AL 250V
F902 T2.5AL 250V
927B787 0.1.2
0.1.2.3.4.5.6.7.8.9
Y/C
SERVO
M/C
VPS
MAIN
POWER
TUNER
PCB-MAIN



PCB-MAIN [COMPONENT SIDE]

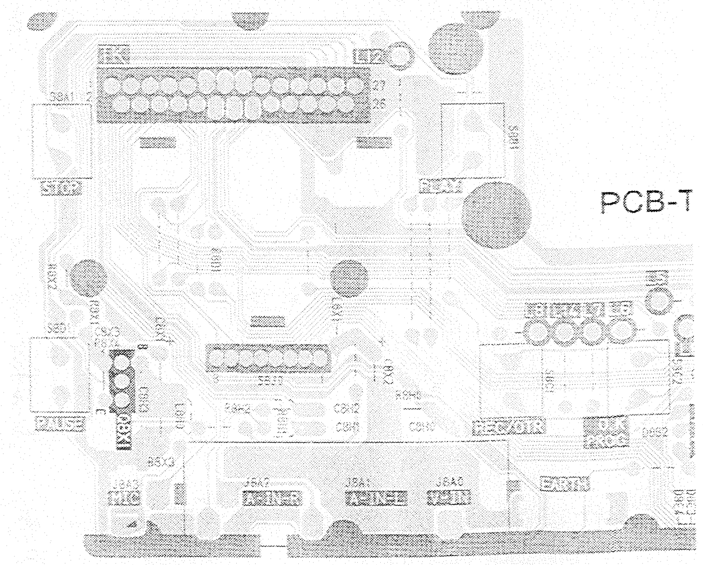
SYMBOL NO.	ADDRESS
CF101	A – 6
CF102	A – 6
CF103	B – 6
CF104	A – 6
CU01	A – 6
D101	C – 7
D102	B – 7
D103	A – 5
D901	C – 2
D902	C – 1
D903	C – 1
D904	C – 2
D905	C – 2
D906	C – 1
D907	C – 1
D908	C – 2
D909	D – 1
D909	D – 1
D910	D – 1
D911	D – 1
D920	D – 1
D921	D – 1
D922	E – 1
D2A0	B – 3
D2A1	B – 3
D2A2	B – 3
D2B0	A – 3
D2B1	A – 3
D2C0	A – 4
D2C1	A – 4
D4A0	E – 3
D4A1	D – 3
D5A1	E – 5
D5A3	C – 3
D5A4	A – 5
D5A5	C – 2
D5A7	C – 5
D5A8	C – 5
D5A9	A – 5
D5B1	D – 4
D5B2	C – 6
D5B4	B – 5
DL2A0	A – 4
DL2A1	A – 4
F901	A – 1
F902	B – 1
F903	B – 1
FC11	A – 1
FC12	A – 1
FC21	B – 1
FC22	B – 1
FC31	B – 1
FC32	B – 1
IC101	A – 6
IC102	B – 7
IC103	B – 6
IC4A0	E – 2
IC4A1	E – 3
IC5A0	D – 6
IC5A1	E – 6
IC5A2	E – 7
IC5A3	D – 6
IC5A4	C – 6
IC5A5	E – 6
IC801	E – 4
J997	C – 3
J998	C – 4
J999	C – 5
J2A0	A – 4
J2A1	A – 4
J5A0	A – 5
L101	A – 7
L102	A – 7
L103	A – 6
L104	A – 6
L105	A – 6
L106	A – 6
L108	B – 6
L109	A – 6
L111	B – 6
L112	A – 6
L113	A – 6
L801	E – 4
L802	E – 4
L2A0	B – 3
L2A1	B – 3
L2A3	B – 3
L2A4	A – 3
L2A6	A – 3
L2A8	B – 2
L2B4	B – 4
L2B5	B – 4
L2B6	A – 5
L2B9	A – 5
Q01	A – 5
Q102	A – 6
Q107	B – 6
Q901	D – 1
Q902	D – 1
Q903	D – 1
Q904	D – 1
Q907	D – 1
Q908	D – 1
Q911	E – 1
Q2C7	A – 4
Q2C8	A – 5
Q5A5	B – 5
Q5E1	D – 6
Q5E2	D – 2
Q5E3	E – 3
Q5E4	E – 4
S5A0	E – 2
S5A1	A – 7
SF101	A – 6
SF102	A – 6
T901	B – 1
TP01	B – 7
TP02	B – 7
TP03	B – 7
TP04	C – 7
TP11	A – 7
TP12	A – 6
TP13	B – 6
TP14	B – 6
TP16	B – 6
TP21	A – 6
TP1A	A – 6
TP1C	A – 6
TP1E	A – 6
TP1S	A – 5
TP1V	A – 5
TP2J	A – 5
TP2M	A – 3
TP2N	B – 3
TP2S	B – 2
TP5A	C – 6
TP5B	D – 7
TP5C	C – 6
TP5D	C – 4
TP5X	D – 6
TP5Y	D – 5
TP9A	B – 7
TP9B	A – 5
TP9C	B – 6
TP2AH	A – 4
TP4C0	D – 3
TP4F1	D – 3
TP4G1	D – 2
TP4M1	D – 3
TP5J0	D – 2
TP5J1	E – 6
TP5J2	E – 6
TP5J3	E – 7
TP5J4	E – 7
TP5J5	E – 6
TP5J8	D – 5
TP5J9	D – 4
TP5K0	C – 4
TP5K1	D – 5
TP5K3	D – 6
TP5K4	E – 6
TPAGC	B – 7
TU01	B – 7
VR101	A – 6
VR2A0	A – 3
VR2A1	A – 3
VR2A2	A – 3
VR2A3	B – 2
VR2A4	A – 3
VR2A5	A – 2
VR5A0	D – 6
X801	E – 4
X5A0	C – 6
X5A1	C – 6

PCB-TIMER/OPE (HS-M50 series)



PCB-TI

PCB-TIMER/OPE (HS-M60 series)

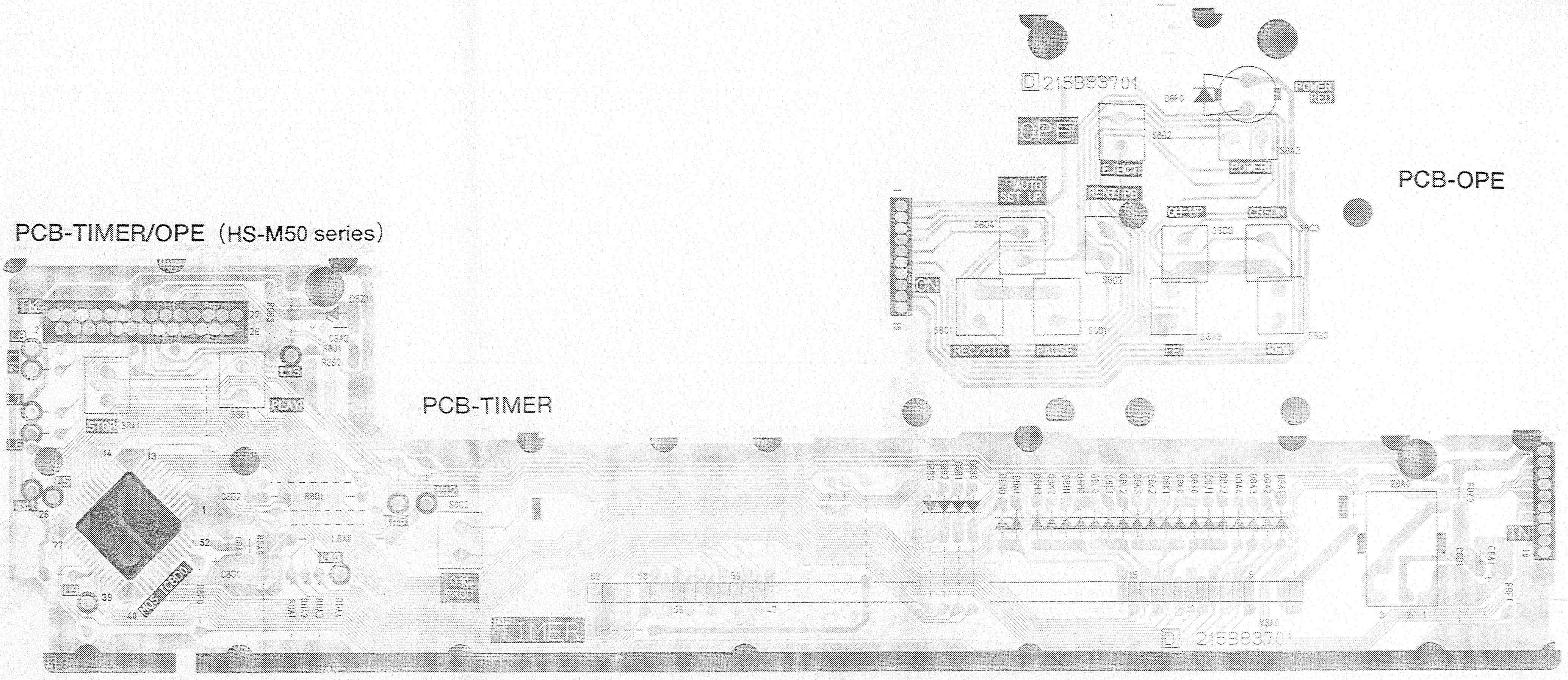


PCB-T

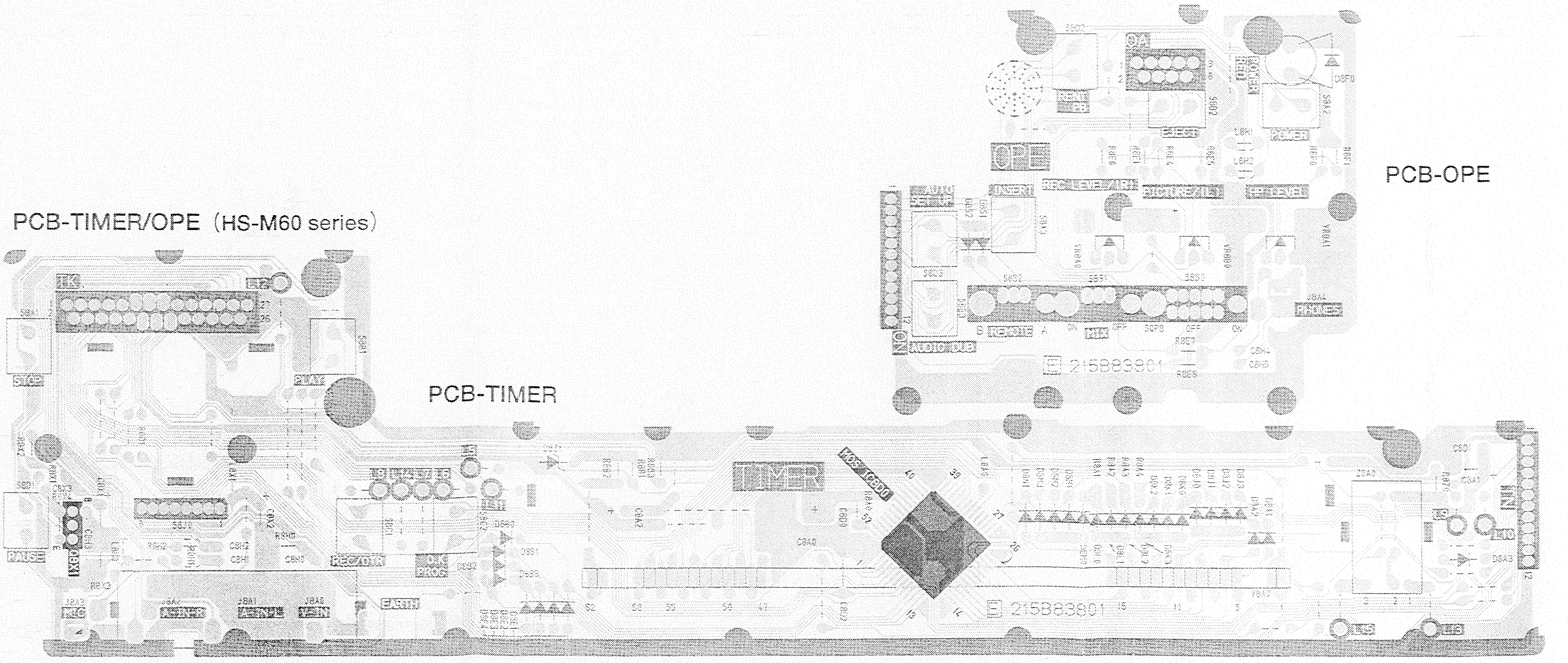
OMPONENT SIDE]

SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS
IC102	B – 7	S5A0	E – 2	VR2A2	A – 3
IC103	B – 6	S5A1	A – 7	VR2A3	B – 2
IC4A0	E – 2			VR2A4	A – 3
IC4A1	E – 3	SF101	A – 6	VR2A5	A – 2
IC5A0	D – 6	SF102	A – 6	VR5A0	D – 6
IC5A1	E – 6				
IC5A2	E – 7	T901	B – 1	X801	E – 4
IC5A3	D – 6			X5A0	C – 6
IC5A4	C – 6	TP01	B – 7	X5A1	C – 6
IC5A5	E – 6	TP02	B – 7		
IC801	E – 4	TP03	B – 7		
		TP04	C – 7		
J997	C – 3	TP11	A – 7		
J998	C – 4	TP12	A – 6		
J999	C – 5	TP13	B – 6		
J2A0	A – 4	TP14	B – 6		
J2A1	A – 4	TP16	B – 6		
J5A0	A – 5	TP21	A – 6		
		TP1A	A – 6		
L101	A – 7	TP1C	A – 6		
L102	A – 7	TP1E	A – 6		
L103	A – 6	TP1S	A – 5		
L104	A – 6	TP1V	A – 5		
L105	A – 6	TP2J	A – 5		
L106	A – 6	TP2M	A – 3		
L108	B – 6	TP2N	B – 3		
L109	A – 6	TP2S	B – 2		
L111	B – 6	TP5A	C – 6		
L112	A – 6	TP5B	D – 7		
L113	A – 6	TP5C	C – 6		
L801	E – 4	TP5D	C – 4		
L802	E – 4	TP5X	D – 6		
L2A0	B – 3	TP5Y	D – 5		
L2A1	B – 3	TP9A	B – 7		
L2A3	B – 3	TP9B	A – 5		
L2A4	A – 3	TP9C	B – 6		
L2A6	A – 3	TP2AH	A – 4		
L2A8	B – 2	TP4C0	D – 3		
L2B4	B – 4	TP4F1	D – 3		
L2B5	B – 4	TP4G1	D – 2		
L2B6	A – 5	TP4M1	D – 3		
L2B9	A – 5	TP5J0	D – 2		
		TP5J1	E – 6		
Q01	A – 5	TP5J2	E – 6		
Q102	A – 6	TP5J3	E – 7		
Q107	B – 6	TP5J4	E – 7		
Q901	D – 1	TP5J5	E – 6		
Q902	D – 1	TP5J8	D – 5		
Q903	D – 1	TP5J9	D – 4		
Q904	D – 1	TP5K0	C – 4		
Q907	D – 1	TP5K1	D – 5		
Q908	D – 1	TP5K3	D – 6		
Q911	E – 1	TP5K4	E – 6		
Q2C7	A – 4	TPAGC	B – 7		
Q2C8	A – 5				
Q5A5	B – 5	TU01	B – 7		
Q5E1	D – 6				
Q5E2	D – 2	VR101	A – 6		
Q5E3	E – 3	VR2A0	A – 3		
Q5E4	E – 4	VR2A1	A – 3		

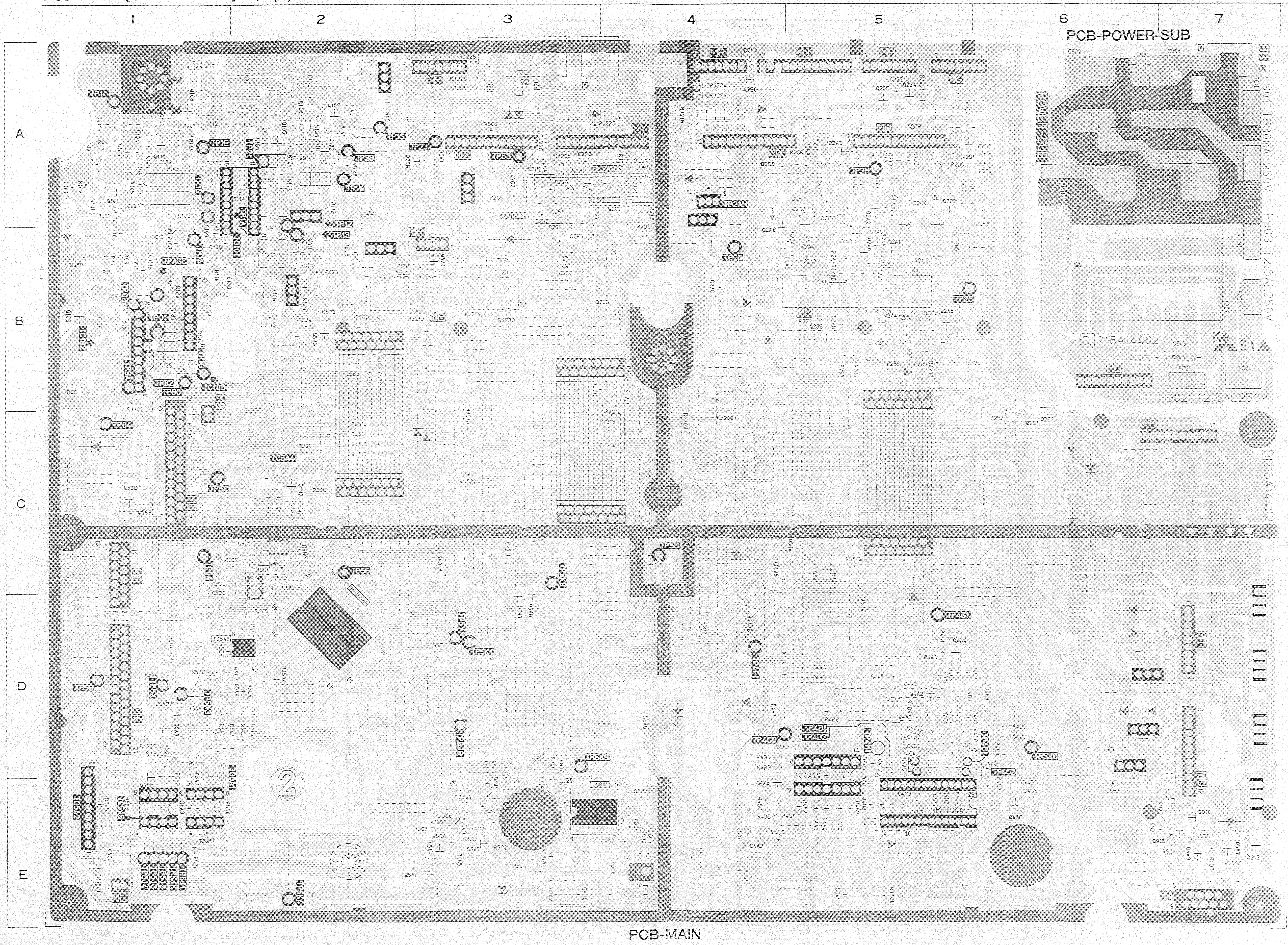
PCB-TIMER/OPE（HS-M50 series）


PCB-OPE
PCB-TIMER
215B83701
OPE
TIMER
POWER
EJECT
AUTO SET UP
CH-UP
CH-DN
REC/OTR
PAUSE
FF
REW
PLAY
STOP

PCB-TIMER/OPE（HS-M60 series）


PCB-OPE
PCB-TIMER
215B83801
215B83901
OPE
TIMER
POWER
EJECT
AUTO SET UP
INSERT
PHONES
REMOTE
MIX
AUTO DUB
PLAY
PAUSE
REC/OTR
EARTH

PCB-MAIN [SOLDER SIDE] (V (G) model)


1
2
3
4
5
6
7
A
B
C
D
E
PCB-POWER-SUB
POWER-SUB
F901 T630mAL250V
F903 T2.5AL250V
F902 T2.5AL250V
215A14402
S1
TP11
TP1E
TP1S
TP2J
TP9B
TP1V
TP53
TP12
TP13
TPAGC
TP01
TP02
TP5C
TP04
IC103
IC5A4
TP2H
TP2AH
TP2N
TP5D
TP5E
TP5A
TP5K1
TP5J9
TP5B
TP5X
TP5K3
IC5A1
IC5A2
IC5A3
TP461
TP4C0
TP4D1
TP4D2
TP4Q2
TP5J0
IC4A1
IC4A0
PCB-MAIN

PCB-MAIN [SOLDER SIDE]

SYMBOL NO.	ADDRESS
C12	B – 1
C15	B – 1
C101	A – 1
C102	A – 1
C103	A – 1
C104	A – 1
C105	A – 1
C106	A – 1
C107	A – 1
C108	B – 1
C109	B – 1
C112	A – 1
C113	A – 2
C114	A – 2
C116	B – 2
C117	B – 2
C118	A – 2
C119	B – 2
C122	B – 1
C124	B – 1
C126	B – 1
C127	B – 1
C130	A – 2
C136	B – 1
C138	B – 1
C139	A – 1
C142	A – 1
C801	E – 4
C802	E – 3
C804	E – 3
C805	E – 4
C806	E – 4
C807	E – 4
C808	E – 4
C901	A – 7
C902	A – 6
C903	B – 7
C904	B – 7
C2A0	B – 5
C2A1	B – 5
C2A2	B – 5
C2A3	A – 5
C2A4	B – 5
C2A5	A – 5
C2A7	A – 5
C2A8	B – 5
C2A9	B – 5
C2B0	B – 5
C2B1	B – 5
C2B3	A – 5
C2B4	B – 5
C2B6	B – 5
C2B8	A – 5
C2C9	A – 5
C2F0	B – 3
C2F1	A – 3
C2F2	B – 3
C2F3	A – 3
C2H0	A – 5
C2H1	A – 5

SYMBOL NO.	ADDRESS
C2S2	A – 5
C2S3	A – 5
C4A1	E – 5
C4A2	D – 5
C4A3	D – 5
C4A4	D – 5
C4B0	D – 5
C4B1	D – 5
C4B5	D – 5
C4B6	D – 5
C4B7	E – 5
C4B8	D – 5
C4B9	D – 5
C4C0	E – 5
C4C2	E – 5
C4C4	E – 5
C4C5	E – 5
C4C9	E – 5
C4D0	D – 6
C4D3	E – 6
C5A1	E – 5
C5A2	D – 1
C5A7	D – 3
C5A9	B – 2
C5B0	B – 2
C5B5	C – 2
C5B7	C – 5
C5C0	D – 1
C5C1	C – 2
C5C2	C – 2
C5C3	C – 2
C5C4	C – 2
C5C5	E – 1
C5C6	A – 3
C5C7	B – 3
C5E1	D – 1
C5E2	E – 6
C5F0	E – 3
D4A2	E – 4
D5B3	B – 2
DL2A0	A – 3
DL2A1	A – 3
F901	A – 7
F902	B – 7
F903	B – 7
FC11	A – 7
FC12	A – 7
FC21	B – 7
FC22	B – 7
FC31	B – 7
FC32	B – 7
IC101	A – 2
IC102	B – 1
IC103	B – 1
IC801	E – 3

SYMBOL NO.	ADDRESS
IC4A0	E – 5
IC4A1	E – 5
IC5A0	D – 2
IC5A1	E – 1
IC5A2	E – 1
IC5A3	D – 2
IC5A4	C – 2
IC5A5	E – 1
L901	A – 6
Q101	A – 1
Q103	A – 2
Q105	A – 2
Q106	A – 1
Q108	B – 1
Q109	A – 2
Q110	A – 1
Q910	E – 7
Q912	E – 7
Q913	E – 7
Q2A0	B – 5
Q2A1	B – 5
Q2A2	A – 5
Q2A3	A – 5
Q2A4	B – 5
Q2A5	B – 5
Q2A6	B – 4
Q2B1	A – 5
Q2B2	A – 5
Q2C1	A – 4
Q2C2	A – 3
Q2C3	B – 4
Q2D0	A – 4
Q2D6	A – 3
Q2E0	A – 4
Q2E1	C – 6
Q2E2	C – 6
Q2S4	A – 5
Q2S5	A – 5
Q2S6	B – 5
Q4A1	D – 5
Q4A2	D – 5
Q4A3	D – 5
Q4A4	D – 5
Q4A5	E – 4
Q4A6	E – 6
Q5A1	E – 3
Q5A2	E – 3
Q5A3	E – 3
Q5A4	B – 3
Q5A6	D – 2
Q5A7	E – 7
Q5A8	D – 1
Q5A9	E – 7
Q5B0	E – 1
Q5B1	E – 3
Q5B2	C – 2
Q5B3	B – 2
Q5B4	C – 4

SYMBOL NO.	ADDRESS
Q5B6	C – 1
Q5B7	D – 3
Q5B8	D – 3
Q5B9	C – 1
R01	B – 1
R03	B – 1
R04	A – 1
R05	A – 2
R06	B – 1
R08	B – 1
R11	B – 1
R12	B – 1
R13	B – 1
R16	B – 1
R101	A – 1
R102	A – 1
R103	A – 1
R104	A – 1
R105	A – 1
R106	A – 1
R108	B – 1
R110	B – 1
R113	A – 2
R115	B – 2
R116	B – 2
R118	A – 2
R119	A – 2
R120	A – 2
R126	A – 2
R128	B – 2
R129	B – 2
R130	B – 1
R131	B – 1
R132	A – 1
R133	B – 1
R134	B – 1
R135	B – 1
R136	B – 2
R139	A – 2
R140	A – 2
R141	A – 2
R142	A – 2
R143	A – 1
R144	A – 1
R145	A – 1
R147	A – 1
R148	A – 2
R149	A – 2
R150	A – 2
R801	E – 3
R802	E – 4
R803	E – 3
R804	E – 3
R805	E – 3
R901	A – 6
R920	E – 7
R921	E – 6
R922	E – 7
R923	E – 7

SYMBOL NO.	ADDRESS
R2A0	B – 5
R2A1	B – 5
R2A3	B – 5
R2A4	B – 5
R2A5	B – 5
R2A6	B – 5
R2A7	B – 5
R2A9	A – 5
R2B0	A – 5
R2B1	A – 5
R2B2	A – 5
R2B3	A – 5
R2B5	A – 5
R2B6	B – 5
R2B7	B – 5
R2B8	B – 5
R2B9	B – 5
R2C0	B – 5
R2C1	B – 5
R2C2	B – 5
R2C3	B – 5
R2C4	B – 5
R2C6	A – 5
R2D0	A – 5
R2D7	A – 6
R2D8	A – 5
R2D9	A – 6
R2E0	A – 5
R2E1	B – 5
R2E2	A – 5
R2G4	A – 3
R2G5	A – 3
R2G6	B – 3
R2G7	A – 3
R2G8	B – 4
R2G9	B – 4
R2H1	A – 3
R2H2	A – 3
R2H3	A – 3
R2H4	A – 3
R2J5	A – 5
R2J6	B – 4
R2K1	A – 3
R2P0	A – 4
R2P2	C – 6
R2T2	A – 5
R2T3	A – 5
R2T4	A – 4
R2T5	A – 4
R4A0	D – 4
R4A1	D – 4
R4A2	D – 5
R4A3	E – 5
R4A4	E – 5
R4A5	D – 5
R4A6	D – 5
R4A7	D – 5
R4A8	D – 4
R4A9	E – 5
R4B0	E – 5

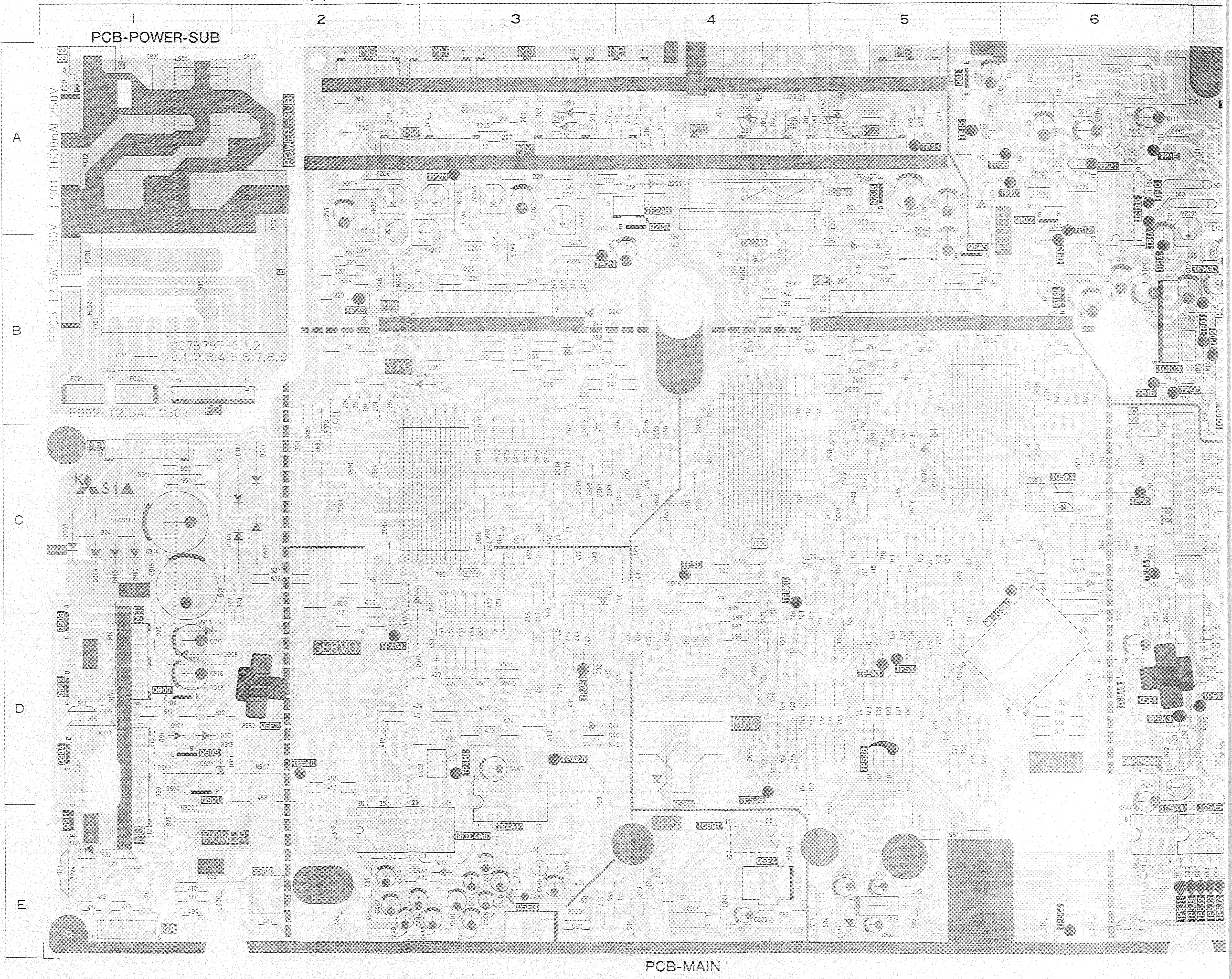
SYMBOL NO.	ADDRESS
R4B1	E – 4
R4B2	E – 5
R4B3	D – 4
R4B4	D – 4
R4B5	E – 4
R4B6	E – 4
R4B7	D – 5
R4B8	D – 5
R4B9	D – 5
R4C0	D – 5
R4C1	D – 5
R4C2	D – 5
R4C5	D – 5
R4C6	D – 5
R4C7	D – 5
R4C8	D – 5
R4C9	D – 5
R4D0	E – 6
R4D1	E – 5
R4D2	E – 5
R4D3	D – 5
R4D4	D – 5
R4D5	D – 5
R4D6	E – 5
R4D7	E – 5
R4D8	D – 5
R4D9	D – 6
R4E0	D – 6
R4E1	E – 6
R4E5	E – 4
R5A0	E – 1
R5A1	E – 1
R5A2	E – 1
R5A3	E – 1
R5A4	D – 1
R5A6	D – 1
R5A8	D – 1
R5A9	D – 4
R5B4	E – 3
R5B5	E – 1
R5B6	E – 1
R5B7	E – 4
R5B9	E – 4
R5C0	E – 3
R5C1	E – 3
R5C2	E – 3
R5C3	E – 3
R5C4	E – 3
R5C5	E – 3
R5C6	A – 3
R5C8	C – 1
R5C9	B – 2
R5D1	B – 2
R5D2	B – 2
R5D6	E – 7
R5D7	E – 7
R5E0	D – 2
R5E1	D – 1
R5E2	D – 2
R5E3	D – 2

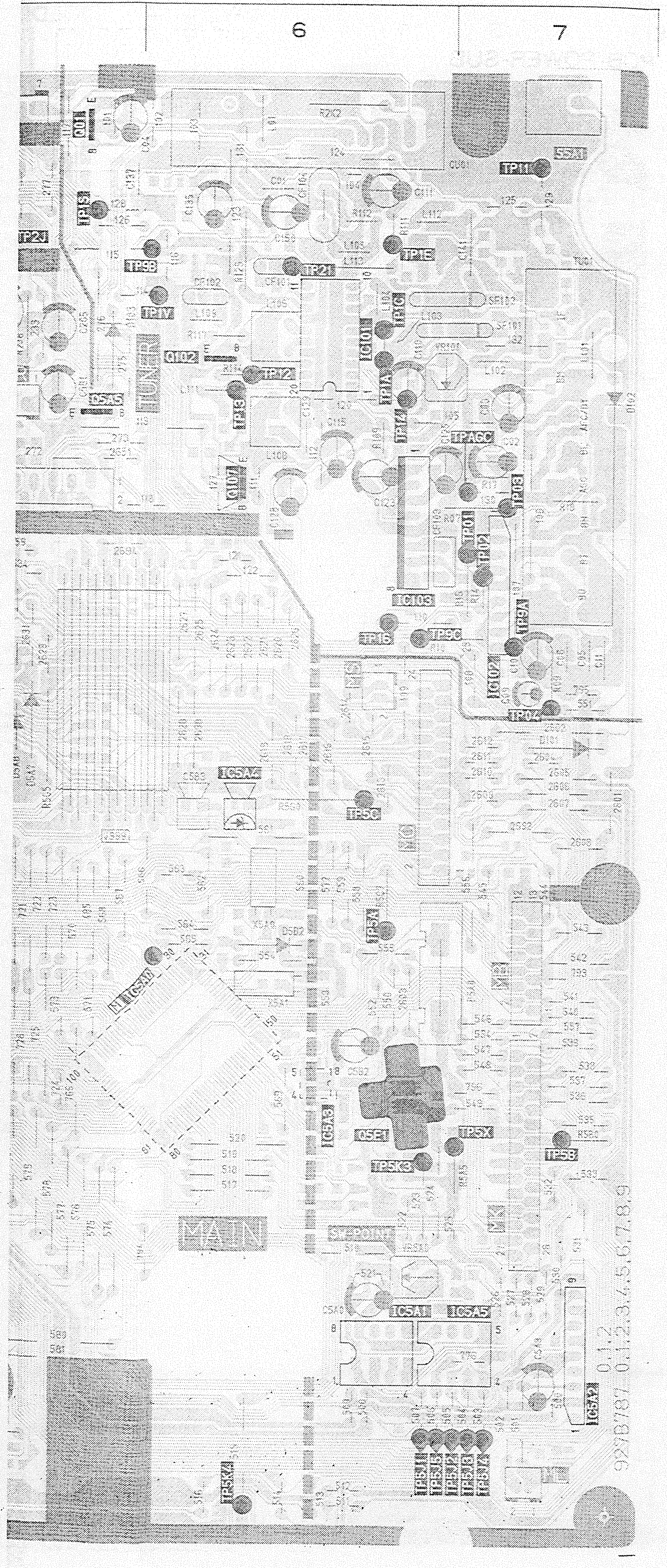
SYMBOL NO.	ADDRESS
R5E4	D – 2
R5E5	D – 2
R5E6	D – 1
R5E7	D – 2
R5E8	E – 3
R5E9	E – 3
R5F0	E – 3
R5F2	B – 5
R5F3	D – 1
R5G2	E – 1
R5G3	E – 1
R5G4	D – 1
R5G7	C – 2
R5G8	C – 2
R5G9	C – 2
R5H0	C – 2
R5H1	C – 2
R5H2	C – 2
R5H3	C – 3
R5H4	B – 4
R5H7	D – 4
R5H8	D – 3
R5H9	A – 3
R5J2	B – 2
R5J3	B – 2
R5J4	B – 2
R5K0	A – 3
R5K4	C – 2
R5K5	E – 1
RJ102	B – 1
RJ103	C – 1
RJ104	B – 1
RJ105	B – 1
RJ109	A – 1
RJ115	B – 2
RJ116	B – 1
RJ119	A – 1
RJ201	A – 5
RJ203	B – 5
RJ204	B – 5
RJ206	B – 5
RJ207	B – 4
RJ208	C – 4
RJ209	C – 4
RJ210	B – 4
RJ211	B – 4
RJ212	B – 4
RJ213	C – 4
RJ214	C – 4
RJ215	B – 3
RJ216	B – 3
RJ217	B – 3
RJ218	A – 4
RJ219	B – 3
RJ220	A – 4
RJ221	A – 4
RJ222	A – 4
RJ223	A – 3
RJ225	A – 3

SYMBOL NO.	ADDRESS
RJ226	A – 3
RJ227	A – 3
RJ228	A – 3
RJ229	A – 3
RJ234	A – 4
RJ235	A – 4
RJ236	B – 5
RJ237	B – 5
RJ238	B – 3
RJ401	E – 5
RJ402	D – 5
RJ403	D – 5
RJ404	C – 5
RJ405	C – 4
RJ406	D – 4
RJ501	E – 1
RJ502	D – 1
RJ503	D – 1
RJ504	D – 2
RJ505	E – 7
RJ506	E – 3
RJ507	E – 3
RJ508	E – 3
RJ509	E – 3
RJ511	C – 3
RJ512	C – 2
RJ513	C – 2
RJ514	C – 2
RJ515	C – 2
RJ516	C – 3
RJ518	E – 3
RJ519	C – 5
RJ520	C – 3
RJ523	C – 2
RJ524	D – 5
T901	B – 6
TP01	B – 1
TP02	B – 1
TP03	B – 1
TP04	C – 1
TP11	A – 1
TP12	B – 2
TP13	B – 2
TP14	B – 1
TP16	B – 1
TP21	A – 2
TP53	A – 3
TP1A	A – 1
TP1C	A – 1
TP1E	A – 1
TP1S	A – 2
TP1V	A – 2
TP2J	A – 3
TP2M	A – 5
TP2N	B – 4
TP2S	B – 5
TP5A	C – 1
TP5B	D – 1

SYMBOL NO.	ADDRESS
TP5C	C – 1
TP5D	C – 4
TP5F	C – 2
TP5X	D – 1
TP5Y	D – 3
TP9A	B – 1
TP9B	A – 2
TP9C	B – 1
TP2AH	A – 4
TP4C0	D – 4
TP4C1	D – 5
TP4C2	E – 5
TP4D1	D – 5
TP4D2	D – 5
TP4F1	D – 4
TP4G1	D – 5
TP4M1	D – 5
TP5J0	D – 6
TP5J1	E – 1
TP5J2	E – 1
TP5J3	E – 1
TP5J4	E – 1
TP5J5	E – 1
TP5J8	D – 3
TP5J9	D – 3
TP5K0	C – 3
TP5K1	D – 3
TP5K3	D – 1
TP5K4	E – 2
TPAGC	B – 1

PCB-MAIN [COMPONENT SIDE] (V(G) model)


1
2
3
4
5
6
A
B
C
D
E
PCB-POWER-SUB
POWER-SUB
F901 T630mAL 250V
F903 T2.5AL 250V
F902 T2.5AL 250V
927B787 0.1.2
0.1.2.3.4.5.6.7.8.9
Y/C
SERVO
POWER
TUNER
M/C
VPS
MAIN
PCB-MAIN


6
7
MAIN
TUNER
IC103
IC5A1
IC5A5
IC5A2
IC5A3
IC5A4
Q5E1
TP5X
TP5B
TP5K3
TP5A
TP5C
TP16
TP9C
TP9A
TP01
TP02
TP04
TPAGC
TP1A
TP1C
TP1E
TP1S
TP1V
TP21
TP12
TP13
TP14
TP99
TP2J
TP11
S5A1
Q01
Q102
Q107
IC101
IC102
D5A5
TP5K4
TP5J1
TP5J2
TP5J3
TP5J4
TP5J5
9212B787 0.1.2.3.4.5.6.7.8.9

PCB-MAIN [COMPONENT SIDE]

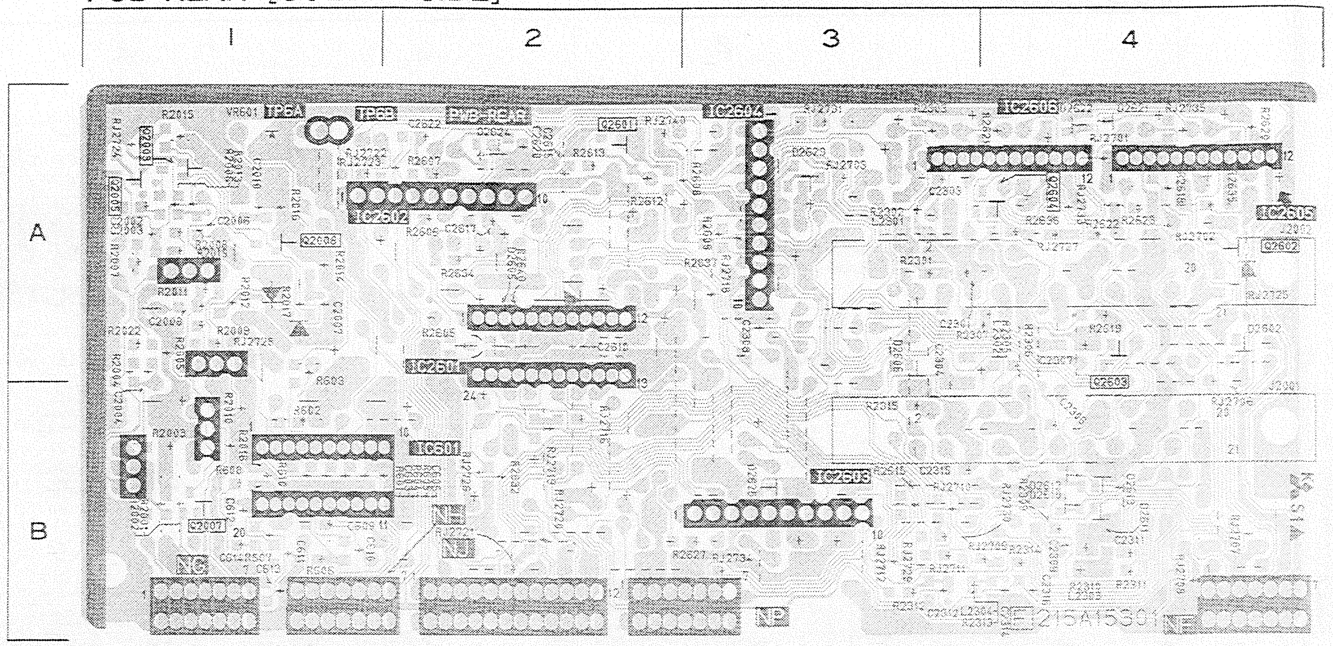
SYMBOL NO.	ADDRESS
CF101	A – 6
CF102	A – 6
CF103	B – 6
CF104	A – 6
CU01	A – 6
D101	C – 7
D102	B – 7
D103	A – 5
D901	C – 2
D902	C – 1
D903	C – 1
D904	C – 2
D905	C – 2
D906	C – 1
D907	C – 1
D908	C – 2
D909	D – 1
D910	D – 1
D911	D – 1
D920	D – 1
D921	D – 1
D922	E – 1
D2A0	B – 2
D2A1	B – 3
D2A2	B – 3
D2B0	A – 3
D2B1	A – 3
D2C0	A – 4
D2C1	A – 4
D4A0	E – 3
D4A1	D – 3
D5A1	E – 5
D5A3	C – 3
D5A4	A – 5
D5A5	C – 2
D5A7	C – 5
D5A8	C – 5
D5A9	A – 5
D5B1	D – 4
D5B2	C – 6
D5B4	B – 5
DL2A0	A – 4
DL2A1	A – 4
F901	A – 1
F902	B – 1
F903	B – 1
FC11	A – 1
FC12	A – 1
FC21	B – 1
FC22	B – 1
FC31	B – 1
FC32	B – 1
IC101	A – 6
IC102	B – 7

SYMBOL NO.	ADDRESS
IC103	B – 6
IC801	E – 4
IC4A0	E – 2
IC4A1	D – 3
IC5A0	D – 6
IC5A1	E – 6
IC5A2	E – 7
IC5A3	D – 6
IC5A4	C – 6
IC5A5	E – 6
J997	C – 3
J998	C – 4
J999	C – 5
J2A0	A – 4
J2A1	A – 4
J5A0	A – 5
L01	A – 6
L101	A – 7
L102	A – 7
L103	A – 6
L104	A – 6
L105	A – 6
L106	A – 6
L108	B – 6
L109	A – 6
L111	B – 6
L112	A – 6
L113	A – 6
L801	E – 4
L802	E – 5
L901	A – 1
L2A0	B – 3
L2A1	B – 3
L2A3	B – 3
L2A4	A – 3
L2A5	B – 3
L2A6	A – 3
L2A8	B – 2
L2B4	B – 4
L2B5	B – 4
L2B6	A – 5
L2B9	A – 5
Q01	A – 5
Q102	A – 6
Q107	B – 6
Q901	D – 1
Q902	D – 1
Q903	D – 1
Q904	D – 1
Q907	D – 1
Q908	D – 1
Q911	E – 1
Q2C7	A – 4
Q2C8	A – 5
Q5A5	B – 5
Q5E1	D – 6
Q5E2	D – 2

SYMBOL NO.	ADDRESS
Q5E3	E – 3
Q5E4	E – 4
S5A0	E – 2
S5A1	A – 7
SF101	A – 6
SF102	A – 6
T901	B – 1
TP01	B – 7
TP02	B – 7
TP03	B – 7
TP04	C – 7
TP11	A – 7
TP12	A – 6
TP13	B – 6
TP14	B – 6
TP16	B – 6
TP21	A – 6
TP1A	A – 6
TP1C	A – 6
TP1E	A – 6
TP1S	A – 5
TP1V	A – 6
TP2AH	A – 4
TP2J	A – 5
TP2M	A – 3
TP2N	B – 3
TP2S	B – 2
TP5A	C – 6
TP5B	D – 6
TP5C	C – 6
TP5D	C – 4
TP5X	D – 6
TP5Y	D – 5
TP9A	B – 7
TP9B	A – 5
TP9C	B – 6
TP4C0	D – 3
TP4F1	D – 3
TP4G1	D – 2
TP4M1	D – 3
TP5J0	D – 2
TP5J1	E – 6
TP5J2	E – 7
TP5J3	E – 7
TP5J4	E – 7
TP5J5	E – 6
TP5J8	D – 5
TP5J9	D – 4
TP5K0	C – 4
TP5K1	D – 5
TP5K3	D – 6
TP5K4	E – 6
TPAGC	B – 7
TU01	A – 7

SYMBOL NO.	ADDRESS
VR101	A – 6
VR2A0	A – 3
VR2A1	A – 3
VR2A2	A – 3
VR2A3	A – 2
VR2A4	A – 3
VR2A5	A – 2
VR5A0	D – 6
X801	E – 4
X5A0	C – 6
X5A1	C – 6

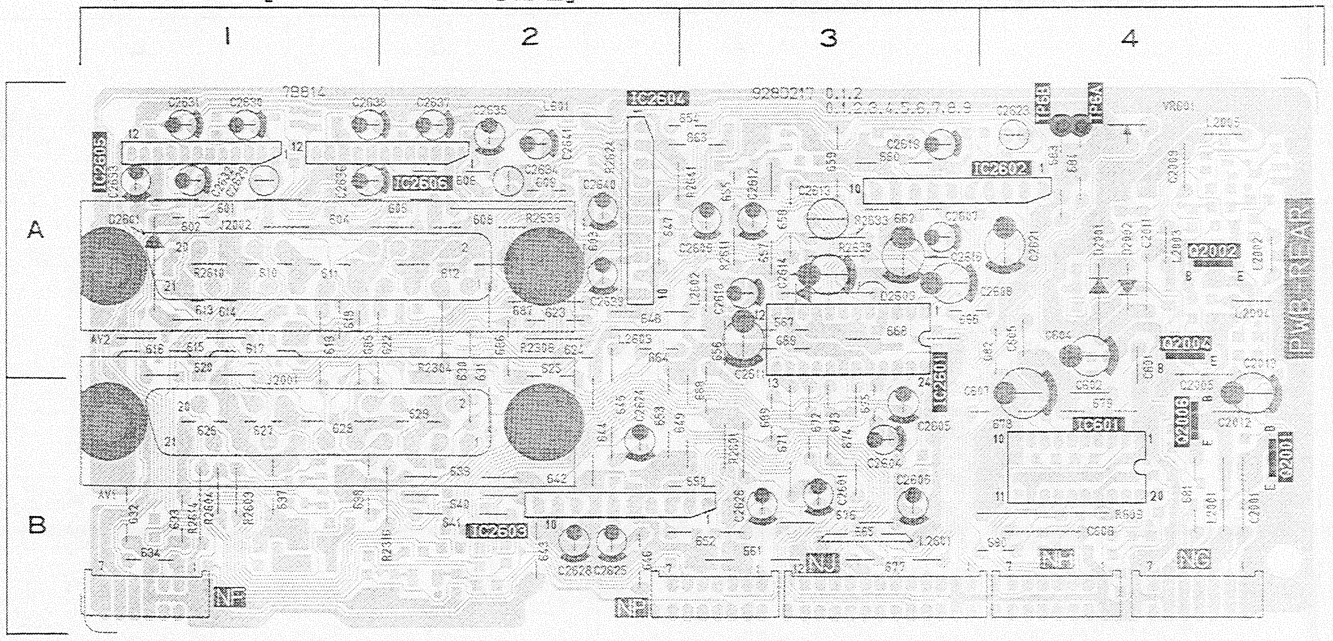
PCB-REAR [SOLDER SIDE]


1
2
3
4
A
B
TP6A
TP6B
PWB-REAR
IC2604
IC2606
IC2605
IC2602
IC2601
IC601
IC2603
VR601
NC
NJ
NP
NE
NH

PCB-REAR [SOLDER SIDE]

SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS
C603	B – 1	C2315	B – 3	J2001	B – 4	R606	B – 1	R2302	A – 3	R2627	B – 3
C606	B – 1	C2316	B – 4	J2002	A – 4	R607	B – 1	R2303	A – 3	R2632	B – 2
C609	B – 1	C2610	A – 2			R608	B – 1	R2305	A – 4	R2634	A – 2
C610	B – 1	C2615	A – 2	L2301	A – 3	R610	B – 1	R2306	A – 4	R2635	A – 4
C611	B – 1	C2617	A – 2	L2302	A – 4	R2001	B – 1	R2307	A – 3	R2636	A – 4
C612	B – 1	C2620	A – 2	L2303	B – 4	R2002	B – 1	R2309	B – 4	R2637	A – 3
C613	B – 1	C2622	A – 2	L2304	B – 3	R2003	B – 1	R2310	B – 4	R2640	A – 2
C614	B – 1					R2004	A – 1	R2311	B – 4	R2914	B – 4
C2002	A – 1	D2602	A – 4	Q2003	A – 1	R2005	A – 1	R2312	B – 3		
C2003	A – 1	D2606	A – 3	Q2005	A – 1	R2006	A – 1	R2313	B – 3	RJ2701	A – 4
C2004	B – 1	D2610	B – 4	Q2007	B – 1	R2007	A – 1	R2315	B – 3	RJ2702	A – 4
C2006	A – 1	D2611	B – 4	Q2008	A – 1	R2008	A – 1	R2605	A – 2	RJ2703	A – 3
C2007	A – 1	D2612	B – 4	Q2601	A – 2	R2009	A – 1	R2606	A – 2	RJ2706	A – 4
C2008	A – 1	D2613	B – 4	Q2602	A – 4	R2010	B – 1	R2607	A – 2	RJ2707	B – 4
C2010	A – 1	D2623	A – 3	Q2603	A – 4	R2011	A – 1	R2608	A – 2	RJ2708	B – 4
C2301	A – 3	D2624	A – 2	Q2604	A – 4	R2012	A – 1	R2609	A – 3	RJ2709	B – 3
C2303	A – 3	D2625	B – 3	Q2605	A – 2	R2013	A – 1	R2612	A – 2	RJ2710	B – 3
C2304	A – 3			Q2621	A – 4	R2014	A – 1	R2615	B – 3	RJ2711	B – 3
C2306	B – 4	IC260	A – 2	Q2622	A – 4	R2015	A – 1	R2618	A – 4	RJ2712	B – 3
C2307	A – 4	IC601	B – 2			R2016	A – 1	R2619	A – 2	RJ2716	B – 2
C2308	A – 3	IC2602	A – 2	R601	B – 1	R2017	A – 1	R2619	A – 4	RJ2718	A – 3
C2309	B – 4	IC2603	B – 3	R602	B – 1	R2018	B – 1	R2620	A – 4	RJ2719	B – 2
C2311	B – 4	IC2604	A – 3	R603	B – 1	R2019	A – 1	R2621	A – 3	RJ2720	B – 2
C2312	B – 3	IC2605	A – 4	R604	B – 1	R2022	A – 1	R2622	A – 4	RJ2721	B – 2
C2314	B – 4	IC2606	A – 4	R605	B – 1	R2301	A – 3	R2623	A – 4	RJ2722	A – 1

PCB-REAR [COMPONENT SIDE]


1
2
3
4
A
B
IC2605
IC2606
IC2604
IC2602
IC2601
IC601
IC2603
Q2002
Q2004
Q2006
Q2001
TP6B
TP6A
VR601
PWB-REAR
J2001
NJ
NE
NG
NB
NF

PCB-REAR [COMPONENT SIDE]

SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS
D2001	A – 4	Q2001	B – 4
D2002	A – 4	Q2002	A – 4
D2601	A – 1	Q2004	A – 4
D2609	A – 3	Q2006	B – 4
IC601	B – 4	TP6A	A – 4
IC2601	A – 3	TP6B	A – 4
IC2602	A – 3		
IC2603	B – 2	VR601	A – 4
IC2604	A – 2		
IC2605	A – 1		
IC2606	A – 2		
J2001	B – 1		
J2002	A – 1		
L601	A – 2		
L2001	B – 4		
L2002	A – 4		
L2003	A – 4		
L2004	A – 4		
L2005	A – 4		
L2601	B – 3		
L2602	A – 3		
L2603	A – 2		

DER SIDE]

SYMBOL NO.	ADDRESS
C2315	B – 3
C2316	B – 4
C2610	A – 2
C2615	A – 2
C2617	A – 2
C2620	A – 2
C2622	A – 2
D2602	A – 4
D2606	A – 3
D2610	B – 4
D2611	B – 4
D2612	B – 4
D2613	B – 4
D2623	A – 3
D2624	A – 2
D2625	B – 3
[illegible]0	A – 2
[illegible]601	B – 2
IC2602	A – 2
IC2603	B – 3
IC2604	A – 3
IC2605	A – 4
IC2606	A – 4

SYMBOL NO.	ADDRESS
J2001	B – 4
J2002	A – 4
L2301	A – 3
L2302	A – 4
L2303	B – 4
L2304	B – 3
Q2003	A – 1
Q2005	A – 1
Q2007	B – 1
Q2008	A – 1
Q2601	A – 2
Q2602	A – 4
Q2603	A – 4
Q2604	A – 4
Q2605	A – 2
Q2621	A – 4
Q2622	A – 4
R601	B – 1
R602	B – 1
R603	B – 1
R604	B – 1
R605	B – 1

SYMBOL NO.	ADDRESS
R606	B – 1
R607	B – 1
R608	B – 1
R610	B – 1
R2001	B – 1
R2002	B – 1
R2003	B – 1
R2004	A – 1
R2005	A – 1
R2006	A – 1
R2007	A – 1
R2008	A – 1
R2009	A – 1
R2010	B – 1
R2011	A – 1
R2012	A – 1
R2013	A – 1
R2014	A – 1
R2015	A – 1
R2016	A – 1
R2017	A – 1
R2018	B – 1
R2019	A – 1
R2022	A – 1
R2301	A – 3

SYMBOL NO.	ADDRESS
R2302	A – 3
R2303	A – 3
R2305	A – 4
R2306	A – 4
R2307	A – 3
R2309	B – 4
R2310	B – 4
R2311	B – 4
R2312	B – 3
R2313	B – 3
R2315	B – 3
R2605	A – 2
R2606	A – 2
R2607	A – 2
R2608	A – 2
R2609	A – 3
R2612	A – 2
R2615	B – 3
R2618	A – 4
R2619	A – 2
R2619	A – 4
R2620	A – 4
R2621	A – 3
R2622	A – 4
R2623	A – 4

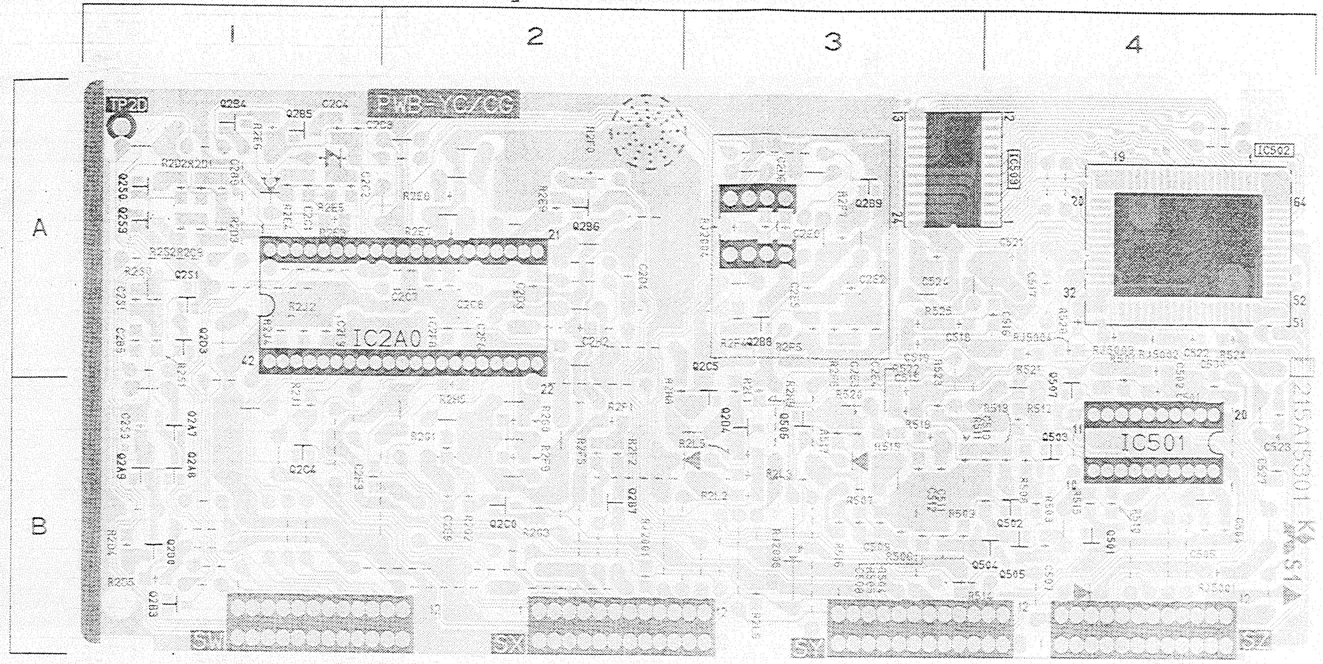
SYMBOL NO.	ADDRESS
R2627	B – 3
R2632	B – 2
R2634	A – 2
R2635	A – 4
R2636	A – 4
R2637	A – 3
R2640	A – 2
R2914	B – 4
RJ2701	A – 4
RJ2702	A – 4
RJ2703	A – 3
RJ2706	A – 4
RJ2707	B – 4
RJ2708	B – 4
RJ2709	B – 3
RJ2710	B – 3
RJ2711	B – 3
RJ2712	B – 3
RJ2716	B – 2
RJ2718	A – 3
RJ2719	B – 2
RJ2720	B – 2
RJ2721	B – 2
RJ2722	A – 1

SYMBOL NO.	ADDRESS
RJ2723	A – 1
RJ2724	A – 1
RJ2725	A – 4
RJ2726	B – 2
RJ2727	A – 4
RJ2728	A – 1
RJ2729	B – 3
RJ2730	B – 4
RJ2731	A – 3
RJ2733	A – 4
RJ2734	B – 3
RJ2735	A – 4
RJ2740	A – 2
TP64	A – 1
TP6B	A – 1
VR601	A – 1

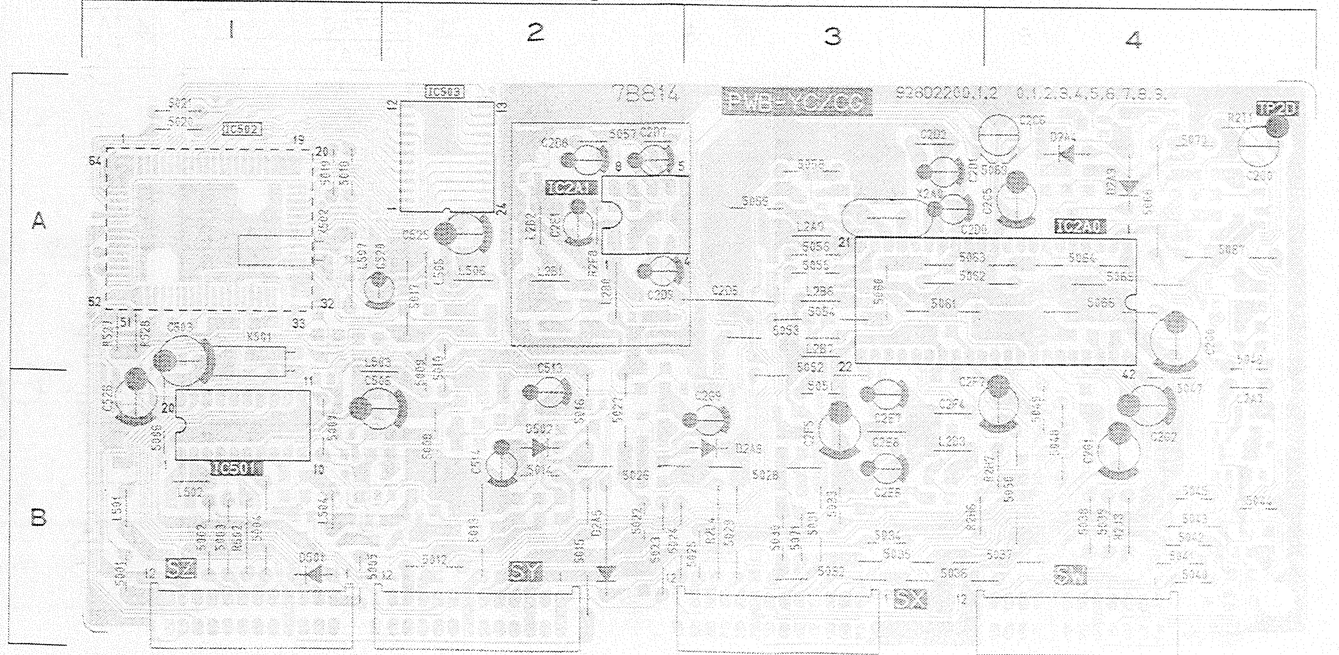
PONENT SIDE]

SYMBOL NO.	ADDRESS
Q2001	B – 4
Q2002	A – 4
Q2004	A – 4
Q2006	B – 4
TP6A	A – 4
TP6B	A – 4
[illegible]601	A – 4

PCB-YC/CG [SOLDER SIDE]



PCB-YC/CG [COMPONENT SIDE]



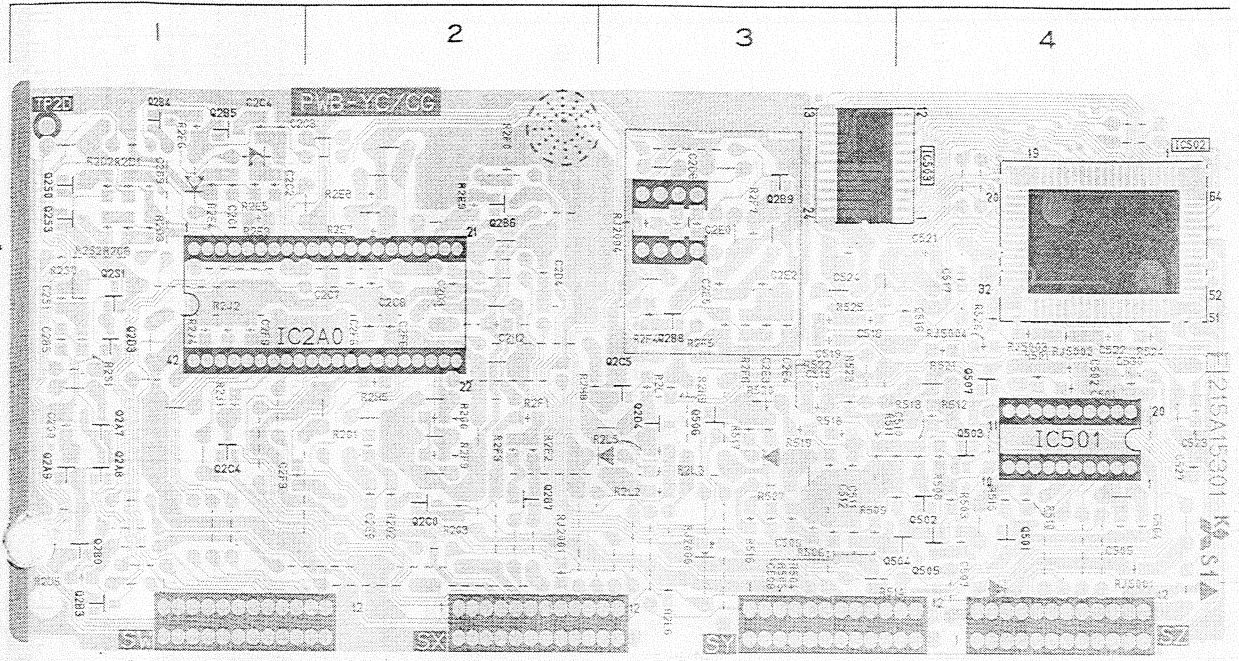
PCB-YC/(

SYMBOL NO.	AD
C501	
C502	
C504	
C505	
C507	
C508	
C509	
C510	
C511	
C512	
C515	
C516	
C517	
C518	
C519	
C521	
C522	
C523	
C524	
C527	
C530	
C2B5	
C2B9	
C2C1	
C2C2	

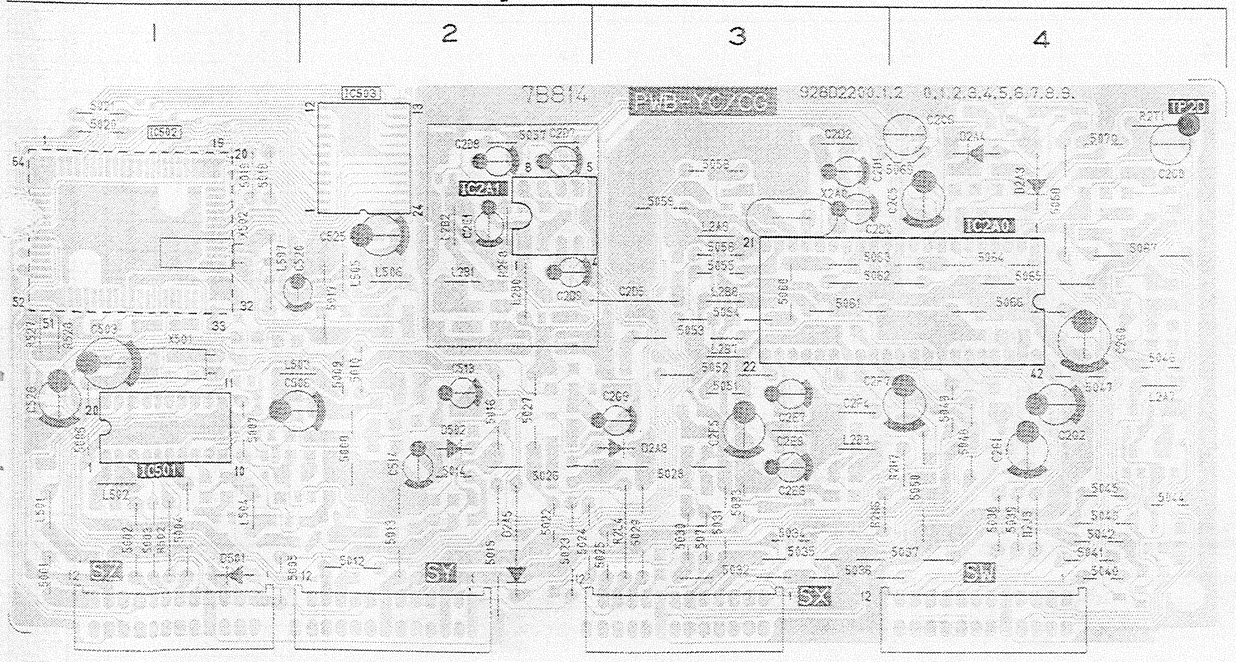
PCB-YC/(

SYMBOL NO.	AD
D501	
D502	
D2A3	
D2A4	
D2A5	
D2A8	
IC501	
IC502	
IC503	
IC2A0	
IC2A1	
L501	
L502	
L503	
L504	
L505	
L506	
L507	
L2A7	
L2A9	
L2B0	
L2B1	
L2B2	

PCB-YC/CG [SOLDER SIDE]



PCB-YC/CG [COMPONENT SIDE]



PCB-YC/CG [SOLDER SIDE]

SYMBOL NO.	ADDRESS
C501	B – 4
C502	A – 4
C504	B – 4
C505	B – 4
C507	B – 4
C508	B – 3
C509	B – 3
C510	B – 4
C511	B – 3
C512	B – 3
C515	B – 3
C516	A – 4
C517	A – 4
C518	A – 3
C519	A – 3
C521	A – 4
C522	A – 4
C523	B – 4
C524	A – 3
C527	B – 4
C530	A – 4
C2B5	A – 1
C2B9	A – 1
C2C1	A – 1
C2C2	A – 1

SYMBOL NO.	ADDRESS
C2C3	A – 1
C2C4	A – 1
C2C7	A – 2
C2C8	A – 2
C2D3	A – 2
C2D4	A – 2
C2D6	A – 3
C2E0	A – 3
C2E2	A – 3
C2E3	A – 3
C2E4	A – 3
C2E5	A – 3
C2E9	B – 2
C2F3	B – 1
C2F6	A – 2
C2F8	A – 2
C2F9	A – 1
C2H2	A – 2
C2S0	B – 1
C2S1	A – 1
IC501	B – 4
IC502	A – 4
IC503	B – 3
IC2A0	A – 1

SYMBOL NO.	ADDRESS
Q501	B – 4
Q502	B – 4
Q503	B – 4
Q504	B – 4
Q505	B – 4
Q506	B – 3
Q507	B – 4
Q2A7	B – 1
Q2A8	B – 1
Q2A9	B – 1
Q2B0	B – 1
Q2B3	B – 1
Q2B4	A – 1
Q2B5	A – 1
Q2B6	A – 2
Q2B7	B – 2
Q2B8	A – 3
Q2B9	A – 3
Q2C0	B – 2
Q2C4	B – 1
Q2C5	B – 3
Q2D3	A – 1
Q2D4	B – 3
Q2S0	A – 1
Q2S1	A – 1

SYMBOL NO.	ADDRESS
Q2S3	A – 1
R501	A – 4
R503	B – 4
R504	B – 3
R505	B – 3
R506	B – 3
R507	B – 3
R508	B – 4
R509	B – 3
R510	B – 4
R511	B – 3
R512	B – 4
R513	B – 4
R514	B – 3
R515	B – 4
R516	B – 3
R517	B – 3
R518	B – 3
R519	B – 3
R520	B – 3
R521	A – 4
R522	B – 3
R523	B – 3
R524	A – 4

SYMBOL NO.	ADDRESS
R525	A – 3
R526	A – 4
R2C8	A – 1
R2D1	A – 1
R2D2	A – 1
R2D3	A – 1
R2D4	B – 1
R2D5	B – 1
R2E3	A – 1
R2E4	A – 1
R2E5	A – 1
R2E6	A – 1
R2E7	A – 2
R2E8	A – 2
R2E9	A – 2
R2F0	A – 2
R2F1	B – 2
R2F2	B – 2
R2F3	B – 2
R2F4	A – 3
R2F5	A – 3
R2F6	A – 3
R2F7	A – 3
R2F9	B – 2
R2G0	B – 2

SYMBOL NO.	ADDRESS
R2G1	B – 2
R2G2	B – 2
R2G3	B – 2
R2H5	B – 2
R2H8	B – 2
R2H9	B – 3
R2J1	B – 1
R2J2	A – 1
R2J4	A – 1
R2L1	B – 3
R2L2	B – 3
R2L3	B – 3
R2L5	B – 3
R2L6	B – 3
R2S0	A – 1
R2S1	A – 1
R2S2	A – 1
RJ2001	B – 2
RJ2004	A – 3
RJ2006	B – 3
RJ5001	B – 4
RJ5002	A – 4
RJ5003	A – 4
RJ5004	A – 4

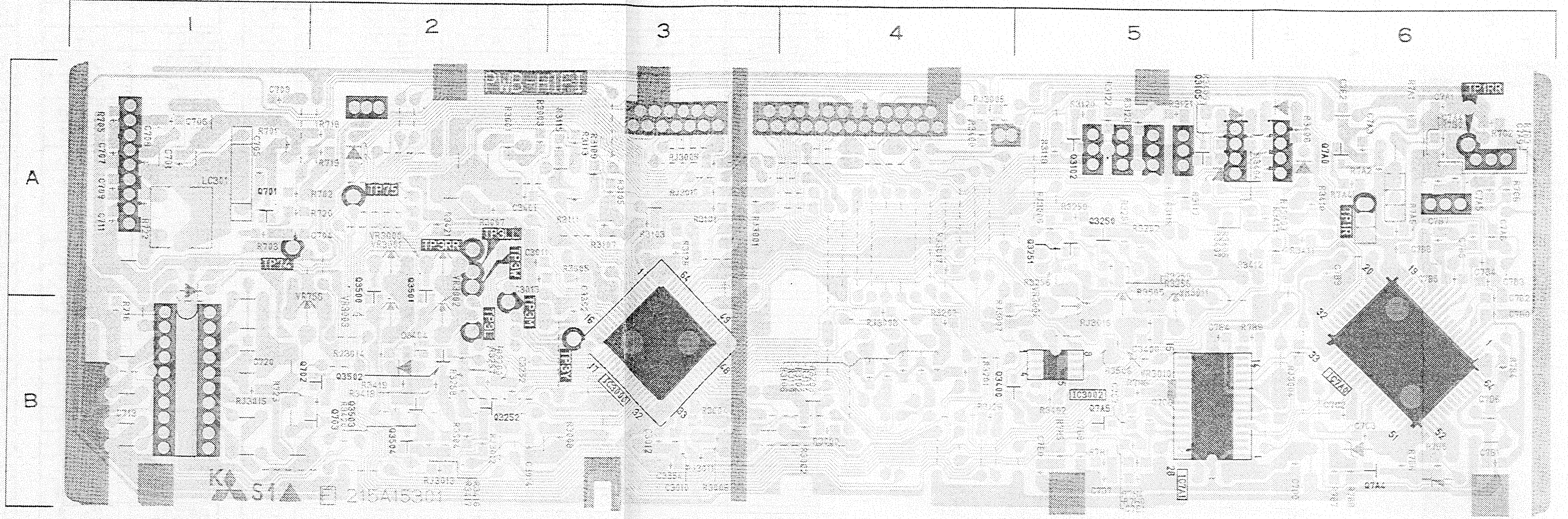
SYMBOL NO.	ADDRESS
TP2D	A – 1

PCB-YC/CG [COMPONENT SIDE]

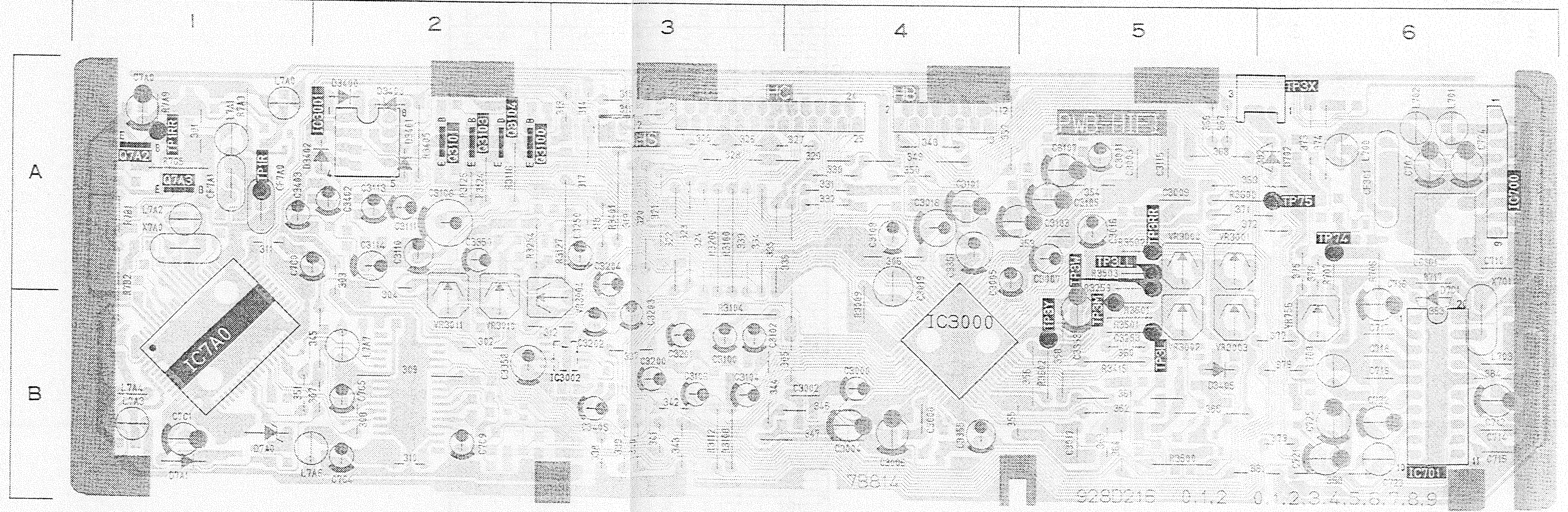
SYMBOL NO.	ADDRESS
D501	B – 1
D502	B – 2
D2A3	A – 4
D2A4	A – 4
D2A5	B – 2
D2A8	B – 3
IC501	B – 1
IC502	A – 1
IC503	A – 2
IC2A0	A – 4
IC2A1	A – 2
L501	B – 1
L502	B – 1
L503	B – 1
L504	B – 1
L505	A – 2
L506	A – 2
L507	A – 1
L2A7	B – 4
L2A9	A – 3
L2B0	A – 2
L2B1	A – 2
L2B2	A – 2

SYMBOL NO.	ADDRESS
L2B3	B – 3
L2B7	A – 3
L2B8	A – 3
TP2D	A – 4
X501	A – 1
X502	A – 1
X2A0	A – 3

PCB-HIFI [SOLDER SIDE]


1
2
3
4
5
6
A
B
TP75
TP74
TP3LL
TP3RR
TP1RR
IC7A1
215A15301

PCB-HIFI [COMPONENT SIDE]

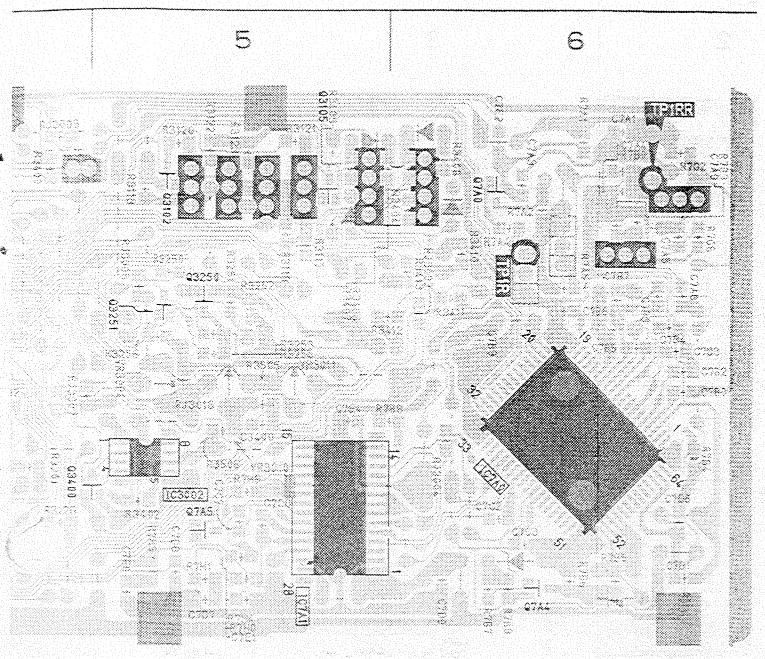

1
2
3
4
5
6
A
B
IC7A0
IC3000
IC700
IC701
IC3001
TP3X
TP75
TP74
TP1RR
Q7A2
Q7A3
PWB-HIFI
7B8T4
929D215

PCB-HIFI [SOLDER S

SYMBOL NO.	ADDRESS	SYM NC
C701	A – 1	C7A
C703	A – 1	C7A
C704	A – 2	C7B
C705	A – 1	C7B
C706	A – 1	C7B
C707	A – 1	C7B
C708	A – 1	C7B
C709	A – 1	C7B
C711	A – 1	C7B
C713	B – 1	C7B
C720	B – 1	C7B
C3010	B – 3	C7B
C3011	A – 3	C7C
C3012	B – 3	C7C
C3013	A – 3	C7C
C3014	B – 2	C7C
C3252	B – 2	C7D
C3352	A – 3	C7D
C3354	B – 3	C7D
C3400	B – 5	C7D
C3401	A – 2	C7E
C7A1	A – 6	C7E
C7A3	A – 6	C7E
C7A4	A – 6	C7E
C7A5	A – 6	

PCB-HIFI [COMPON

SYMBOL NO.	ADDRESS	SYM NC
CF301	A – 6	L70
CF7A0	A – 1	L7A
CF7A1	A – 1	L7A
		L7A
D702	A – 6	L7A
D3400	A – 2	L7A
D3401	A – 2	L7A
D3402	A – 2	L7A
D3403	A – 2	
D3405	B – 5	LC3
D7A0	B – 1	
D7A1	B – 1	Q31
D7C1	A – 6	Q31
		Q31
IC700	A – 6	Q31
IC701	B – 6	Q7A
IC7A0	B – 1	Q7A
IC3000	B – 4	
IC3001	A – 2	TP7
IC3002	B – 3	TP7
		TP1
L700	A – 6	TP3
L701	A – 6	TP3
L702	A – 6	TP3
L703	B – 6	TP3



PCB-HIFI [SOLDER SIDE]

SYMBOL NO.	ADDRESS
C701	A – 1
C703	A – 1
C704	A – 2
C705	A – 1
C706	A – 1
C707	A – 1
C708	A – 1
C709	A – 1
C711	A – 1
C713	B – 1
C720	B – 1
C3010	B – 3
C3011	A – 3
C3012	B – 3
C3013	A – 3
C3014	B – 2
C3252	B – 2
C3352	A – 3
C3354	B – 3
C3400	B – 5
C3401	A – 2
C7A1	A – 6
C7A3	A – 6
C7A4	A – 6
C7A5	A – 6

SYMBOL NO.	ADDRESS
C7A8	A – 6
C7A9	A – 6
C7B0	B – 6
C7B1	B – 6
C7B2	A – 6
C7B3	A – 6
C7B4	A – 6
C7B5	A – 6
C7B6	A – 6
C7B7	A – 6
C7B8	A – 6
C7B9	A – 6
C7C2	B – 6
C7C73	B – 6
C7C7	B – 5
C7C8	B – 5
C7D0	B – 6
C7D6	B – 6
C7D7	B – 5
C7D8	B – 5
C7E0	B – 5
C7E1	B – 5
C7E2	A – 6
C7E4	B – 5

SYMBOL NO.	ADDRESS
IC3000	B – 3
IC3002	B – 5
IC7A0	B – 6
IC7A1	B – 5
LC301	A – 1
Q701	A – 1
Q702	B – 2
Q703	B – 2
Q7A0	A – 6
Q7A4	B – 6
Q7A5	B – 5
Q3102	A – 5
Q3105	A – 5
Q3250	A – 5
Q3251	A – 5
Q3252	B – 2
Q3400	B – 4
Q3404	B – 2
Q3500	A – 2
Q3501	A – 3
Q3502	B – 2
Q3503	B – 2
Q3504	B – 2

SYMBOL NO.	ADDRESS
R701	A – 1
R702	A – 2
R703	A – 1
R705	A – 1
R716	B – 1
R718	A – 2
R719	A – 2
R720	A – 2
R722	A – 1
R723	B – 2
R3000	B – 4
R3002	B – 4
R3003	A – 2
R3004	B – 3
R3005	A – 3
R3006	B – 3
R3007	A – 2
R3007	A – 2
R3008	B – 3
R3101	A – 3
R3102	B – 4
R3103	A – 3
R3105	A – 3
R3106	B – 4
R3107	A – 3

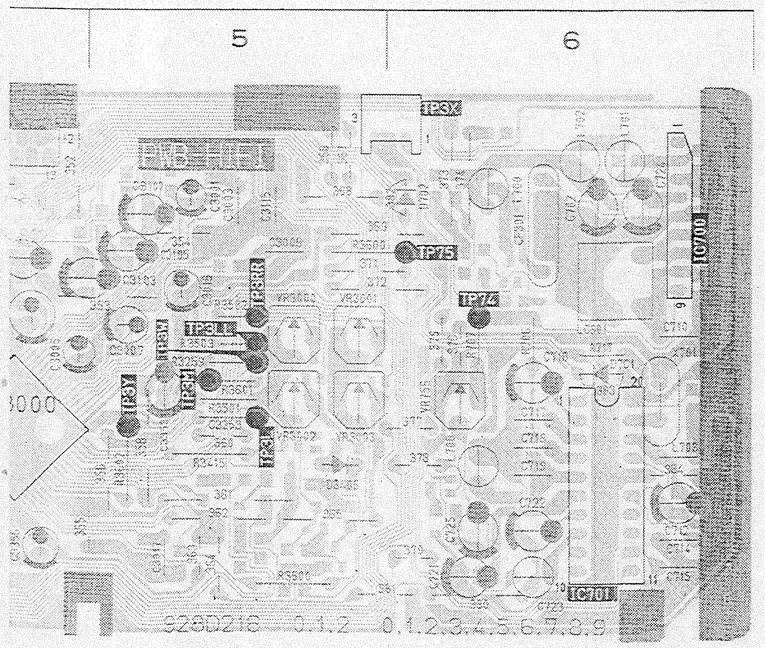
SYMBOL NO.	ADDRESS
R3109	A – 3
R3110	B – 4
R3111	A – 3
R3113	A – 3
R3114	B – 4
R3115	A – 3
R3117	A – 5
R3119	A – 5
R3120	A – 5
R3121	A – 5
R3122	A – 5
R3123	A – 5
R3126	B – 4
R3128	A – 3
R3201	B – 4
R3202	B – 4
R3203	B – 4
R3250	A – 5
R3251	A – 5
R3252	A – 5
R3253	A – 5
R3255	A – 5
R3256	A – 5
R3257	B – 2
R3258	B – 2

SYMBOL NO.	ADDRESS
R3260	B – 2
R3318	A – 5
R3400	A – 4
R3402	B – 5
R3404	A – 6
R3406	A – 5
R3407	A – 5
R3408	A – 6
R3409	A – 5
R3410	A – 6
R3411	A – 6
R3412	A – 5
R3413	A – 6
R3416	B – 2
R3417	B – 2
R3418	B – 2
R3419	B – 2
R3420	B – 2
R3421	A – 2
R3504	B – 2
R3505	A – 5
R3506	B – 5
R7A1	A – 6
R7A2	A – 6
R7A4	A – 6

SYMBOL NO.	ADDRESS
R7A5	A – 6
R7B0	A – 6
R7B3	A – 6
R7B4	B – 6
R7B5	B – 6
R7B6	B – 6
R7B7	B – 6
R7B8	B – 6
R7B9	B – 5
R7G2	A – 6
R7G6	A – 6
R7H0	B – 5
R7H1	B – 5
R7H4	B – 5
R7H5	B – 5
R7H6	B – 5
RJ3001	A – 3
RJ3003	A – 6
RJ3004	B – 6
RJ3005	A – 4
RJ3006	A – 5
RJ3007	B – 4
RJ3008	B – 4
RJ3009	A – 3

SYMBOL NO.	ADDRESS
RJ3010	A – 3
RJ3011	B – 3
RJ3012	B – 2
RJ3013	B – 2
RJ3014	B – 2
RJ3015	B – 1
RJ3016	B – 5
RJ3017	A – 4
TP74	A – 1
TP75	A – 2
TP1R	A – 6
TP3L	B – 2
TP3M	B – 2
TP3W	A – 3
TP3Y	B – 3
TP1RR	A – 6
TP3LL	A – 2
TP3RR	A – 2
VR756	B – 1
VR3000	A – 2
VR3001	A – 2
VR3002	B – 2
VR3003	B – 2

SYMBOL NO.	ADDRESS
VR3004	B – 5
VR3010	B – 5
VR3011	A – 5



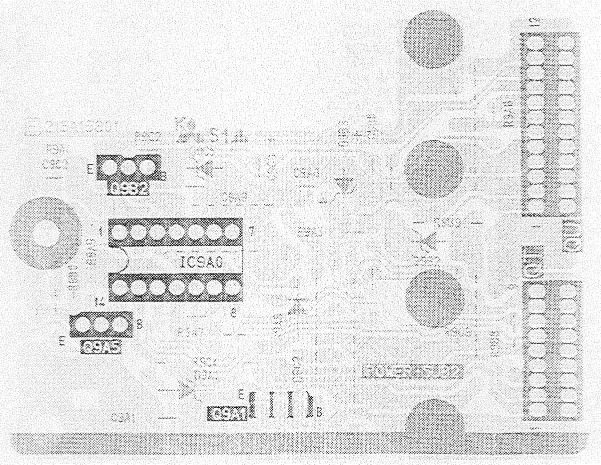
PCB-HIFI [COMPONENT SIDE]

SYMBOL NO.	ADDRESS
CF301	A – 6
CF7A0	A – 1
CF7A1	A – 1
D702	A – 6
D3400	A – 2
D3401	A – 2
D3402	A – 2
D3403	A – 2
D3405	B – 5
D7A0	B – 1
D7A1	B – 1
D7C1	A – 6
IC700	A – 6
IC701	B – 6
IC7A0	B – 1
IC3000	B – 4
IC3001	A – 2
IC3002	B – 3
L700	A – 6
L701	A – 6
L702	A – 6
L703	B – 6

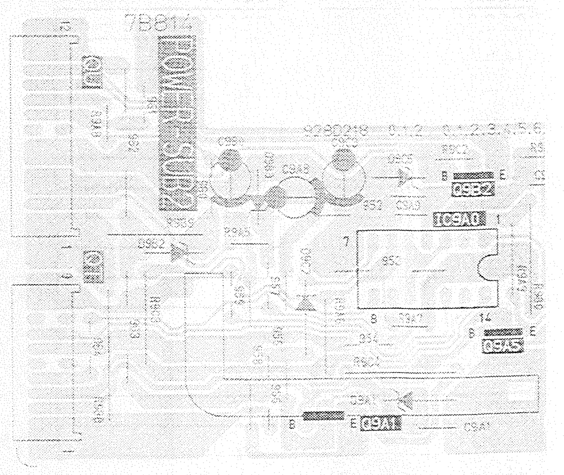
SYMBOL NO.	ADDRESS
L708	B – 6
L7A0	A – 1
L7A1	A – 1
L7A2	A – 1
L7A3	B – 1
L7A4	B – 1
L7A6	B – 1
L7A7	B – 2
LC301	A – 6
Q3100	A – 2
Q3101	A – 2
Q3103	A – 2
Q3104	A – 2
Q7A2	A – 1
Q7A3	A – 1
TP74	A – 6
TP75	A – 6
TP1R	A – 1
TP3L	B – 5
TP3M	B – 5
TP3W	A – 5
TP3X	A – 5

SYMBOL NO.	ADDRESS
TP3Y	B – 5
TP1RR	A – 1
TP3LL	A – 5
TP3RR	A – 5
VR756	B – 6
VR3000	A – 5
VR3001	A – 5
VR3002	B – 5
VR3003	B – 5
VR3004	A – 3
VR3010	A – 2
VR3011	A – 2
X701	B – 6
X7A0	A – 1

PCB-POWER-SUB [SOLDER SIDE]



PCB-POWER-SUB [COMPONENT S



ESS
- 3
- 5
- 6
- 5
- 1
- 1
- 2
- 2
- 6
- 6
- 5
- 5
- 5
- 5
- 5
- 2
[illegible]
[illegible]
- 2
- 3
- 2
- 2
- 2

SYMBOL NO.	ADDRESS
R701	A − 1
R702	A − 2
R703	A − 1
R705	A − 1
R716	B − 1
R718	A − 2
R719	A − 2
R720	A − 2
R722	A − 1
R723	B − 2
R3000	B − 4
R3002	B − 4
R3003	A − 2
R3004	B − 3
R3005	A − 3
R3006	B − 3
R3007	A − 2
R3007	A − 2
R3008	B − 3
R3101	A − 3
R3102	B − 4
R3103	A − 3
R3105	A − 3
R3106	B − 4
R3107	A − 3

SYMBOL NO.	ADDRESS
R3109	A − 3
R3110	B − 4
R3111	A − 3
R3113	A − 3
R3114	B − 4
R3115	A − 3
R3117	A − 5
R3119	A − 5
R3120	A − 5
R3121	A − 5
R3122	A − 5
R3123	A − 5
R3126	B − 4
R3128	A − 3
R3201	B − 4
R3202	B − 4
R3203	B − 4
R3250	A − 5
R3251	A − 5
R3252	A − 5
R3253	A − 5
R3255	A − 5
R3256	A − 5
R3257	B − 2
R3258	B − 2

SYMBOL NO.	ADDRESS
R3260	B − 2
R3318	A − 5
R3400	A − 4
R3402	B − 5
R3404	A − 6
R3406	A − 5
R3407	A − 5
R3408	A − 6
R3409	A − 5
R3410	A − 6
R3411	A − 6
R3412	A − 5
R3413	A − 6
R3416	B − 2
R3417	B − 2
R3418	B − 2
R3419	B − 2
R3420	B − 2
R3421	A − 2
R3504	B − 2
R3505	A − 5
R3506	B − 5
R7A1	A − 6
R7A2	A − 6
R7A4	A − 6

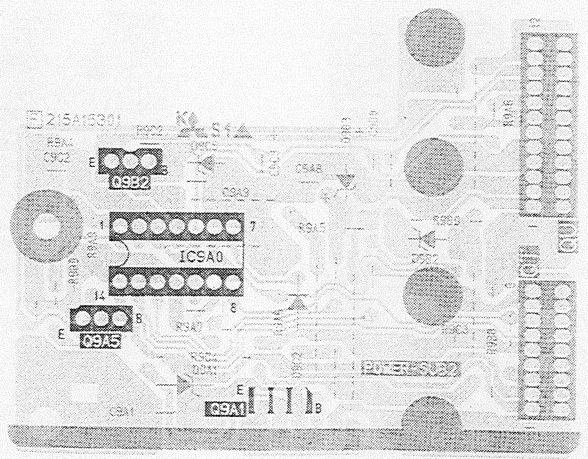
SYMBOL NO.	ADDRESS
R7A5	A − 6
R7B0	A − 6
R7B3	A − 6
R7B4	B − 6
R7B5	B − 6
R7B6	B − 6
R7B7	B − 6
R7B8	B − 6
R7B9	B − 5
R7G2	A − 6
R7G6	A − 6
R7H0	B − 5
R7H1	B − 5
R7H4	B − 5
R7H5	B − 5
R7H6	B − 5
RJ3001	A − 3
RJ3003	A − 6
RJ3004	B − 6
RJ3005	A − 4
RJ3006	A − 5
RJ3007	B − 4
RJ3008	B − 4
RJ3009	A − 3

SYMBOL NO.	ADDRESS
RJ3010	A − 3
RJ3011	B − 3
RJ3012	B − 2
RJ3013	B − 2
RJ3014	B − 2
RJ3015	B − 1
RJ3016	B − 5
RJ3017	A − 4
TP74	A − 1
TP75	A − 2
TP1R	A − 6
TP3L	B − 2
TP3M	B − 2
TP3W	A − 3
TP3Y	B − 3
TP1RR	A − 6
TP3LL	A − 2
TP3RR	A − 2
VR756	B − 1
VR3000	A − 2
VR3001	A − 2
VR3002	B − 2
VR3003	B − 2

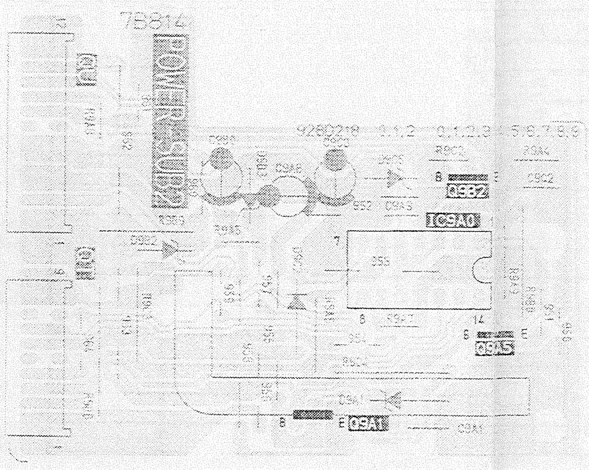
SYMBOL NO.	ADDRESS
VR3004	B − 5
VR3010	B − 5
VR3011	A − 5

ESS
- 5
- 1
- 5
- 5
- 6
- 5
[illegible]
[illegible]
- 5
- 3
- 2
- 2
- 6
- 1

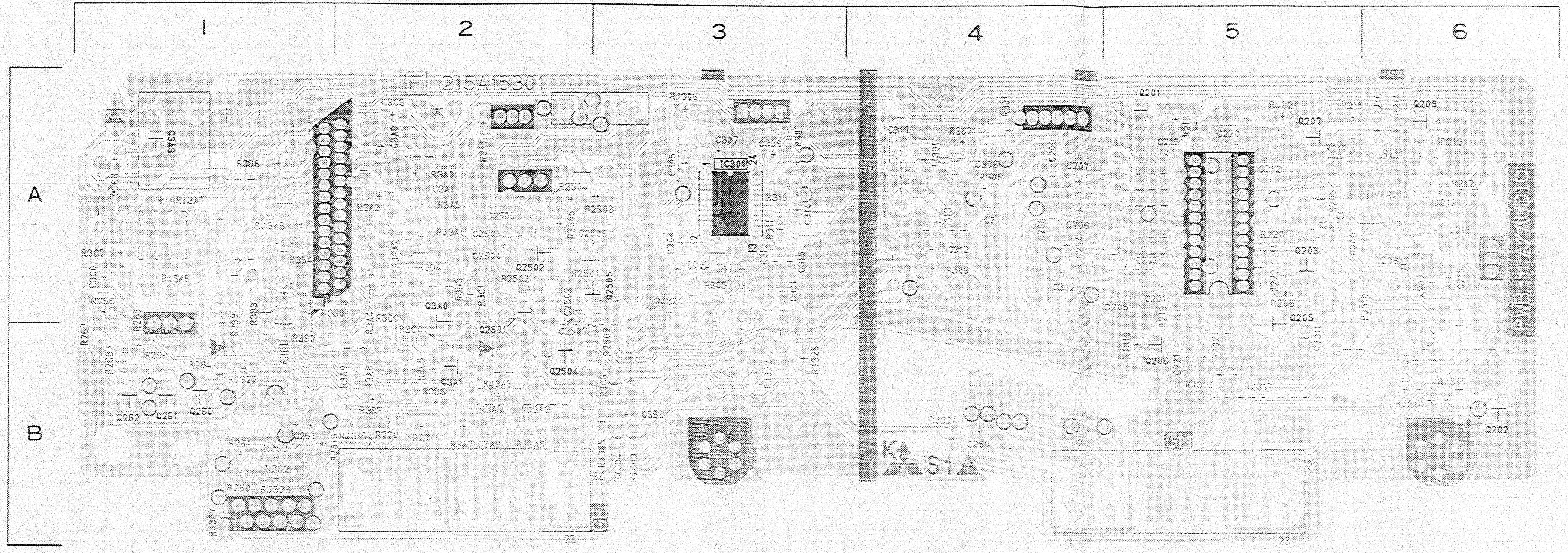
PCB-POWER-SUB [SOLDER SIDE]



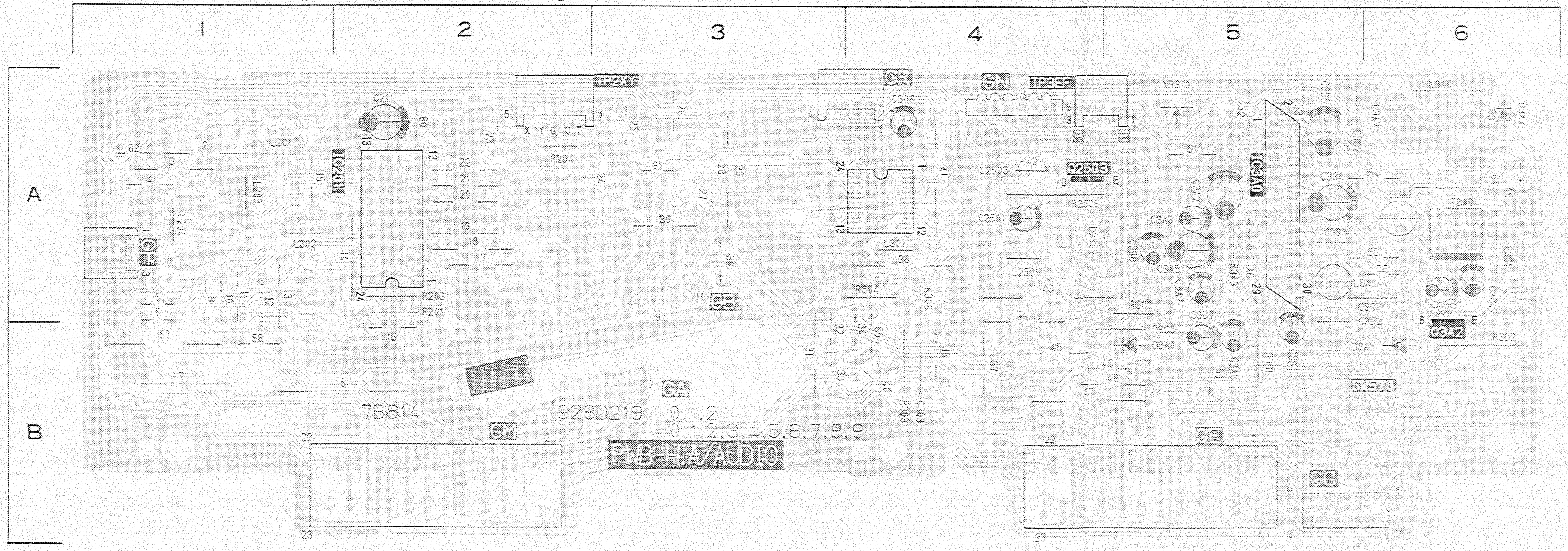
PCB-POWER-SUB [COMPONENT SIDE]



PCB-HA/AUDIO [SOLDER SIDE]


1
2
3
4
5
6
A
B
215A15301
IC301
PWB-HA/AUDIO
S1

PCB-HA/AUDIO [COMPONENT SIDE]


1
2
3
4
5
6
A
B
TP2XY
TP3EF
IC201
IC3A0
Q2503
Q3A2
7B814
928D219
0.1.2
0.1.2.3.4.5.6.7.8.9
PWB-HA/AUDIO

PCB-HA/AUDIO [SOLDER SIDE]

SYMBOL NO.	ADDRESS
C201	A – 5
C202	A – 4
C203	A – 5
C204	A – 4
C205	A – 5
C206	A – 4
C207	A – 4
C208	A – 4
C209	A – 4
C210	A – 5
C212	A – 5
C213	A – 5
C214	A – 5
C215	A – 6
C216	A – 6
C217	A – 6
C218	A – 6
C219	A – 6
C220	A – 5
C221	B – 5
C260	B – 4
C261	B – 1
C301	A – 3
C302	A – 3
C304	A – 3

SYMBOL NO.	ADDRESS
C305	A – 3
C307	A – 3
C308	A – 4
C309	A – 3
C310	A – 4
C311	A – 4
C312	A – 4
C313	A – 4
C314	A – 3
C315	A – 3
C2502	A – 2
C2503	A – 2
C2504	A – 2
C2505	A – 2
C2506	A – 3
C2507	A – 2
C3A0	A – 2
C3A1	A – 2
C3A9	B – 2
C3B9	B – 3
C3C0	A – 1
C3C3	A – 2
IC301	A – 3

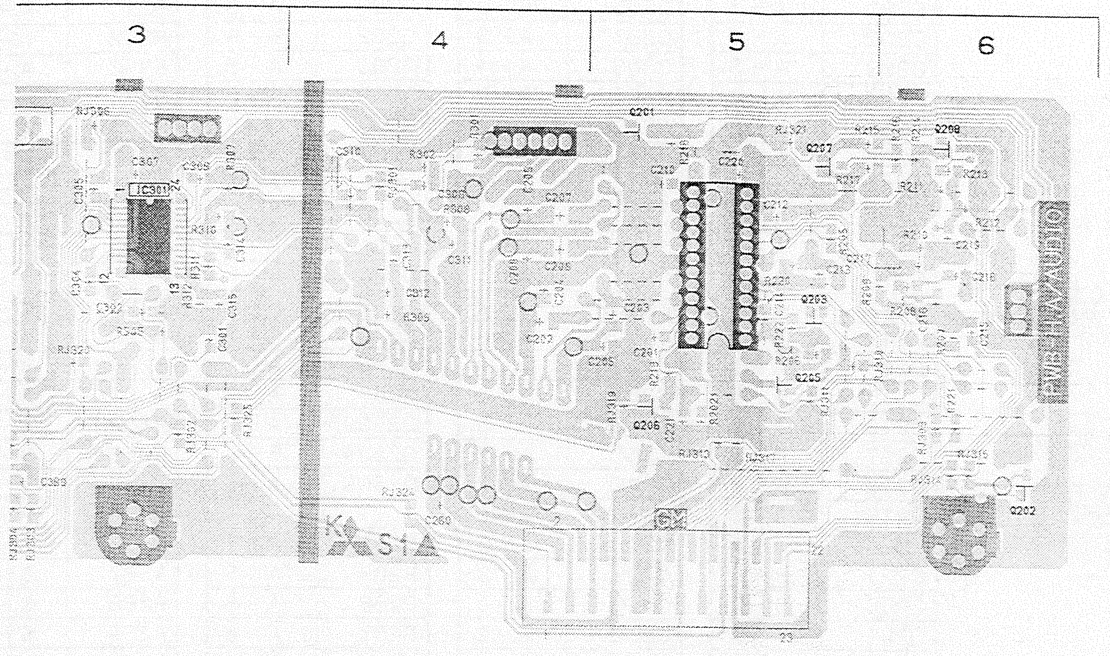
SYMBOL NO.	ADDRESS
Q201	A – 5
Q202	B – 6
Q203	A – 5
Q205	A – 5
Q206	B – 5
Q207	A – 5
Q208	A – 6
Q260	B – 1
Q261	B – 1
Q262	B – 1
Q3A0	A – 2
Q3A1	B – 2
Q3A3	A – 1
Q2501	A – 2
Q2502	A – 2
Q2504	B – 2
Q2505	A – 3
R202	B – 5
R205	A – 5
R206	A – 5
R207	A – 6
R208	A – 6
R209	A – 6
R210	A – 6

SYMBOL NO.	ADDRES
R211	A – 6
R212	A – 6
R213	A – 6
R214	A – 6
R215	A – 6
R216	A – 6
R217	A – 5
R218	A – 5
R219	A – 5
R220	A – 5
R221	B – 6
R222	A – 5
R260	B – 1
R261	B – 1
R262	B – 1
R263	B – 1
R264	B – 1
R265	A – 1
R266	A – 1
R267	B – 1
R268	B – 1
R269	B – 1
R270	B – 2
R271	B – 2
R301	A – 4

PCB-HA/AUDIO [COMPONENT SIDE]

SYMBOL NO.	ADDRESS
D3A0	B – 5
D3A2	A – 6
D3A5	B – 6
IC201	A – 2
IC3A0	A – 5
K3A0	A – 6
L201	A – 1
L202	A – 1
L203	A – 1
L204	A – 1
L301	A – 4
L2501	A – 4
L2502	A – 5
L2503	A – 4
L3A0	A – 6
L3A1	A – 6
L3A2	A – 6
Q3A2	B – 6
Q2503	A – 4
SW570	B – 6

SYMBOL NO.	ADDRESS
T3A0	A – 6
TP2XY	A – 2
TP3EF	A – 4
VR310	A – 5



PCB-HA/AUDIO [SOLDER SIDE]

SYMBOL NO.	ADDRESS
C201	A – 5
C202	A – 4
C203	A – 5
C204	A – 4
C205	A – 5
C206	A – 4
C207	A – 4
C208	A – 4
C209	A – 4
C210	A – 5
C212	A – 5
C213	A – 5
C214	A – 5
C215	A – 6
C216	A – 6
C217	A – 6
C218	A – 6
C219	A – 6
C220	A – 5
C221	B – 5
C260	B – 4
C261	B – 1
C301	A – 3
C302	A – 3
C304	A – 3

SYMBOL NO.	ADDRESS
C305	A – 3
C307	A – 3
C308	A – 4
C309	A – 3
C310	A – 4
C311	A – 4
C312	A – 4
C313	A – 4
C314	A – 3
C315	A – 3
C2502	A – 2
C2503	A – 2
C2504	A – 2
C2505	A – 2
C2506	A – 3
C2507	A – 2
C3A0	A – 2
C3A1	A – 2
C3A9	B – 2
C3B9	B – 3
C3C0	A – 1
C3C3	A – 2
IC301	A – 3

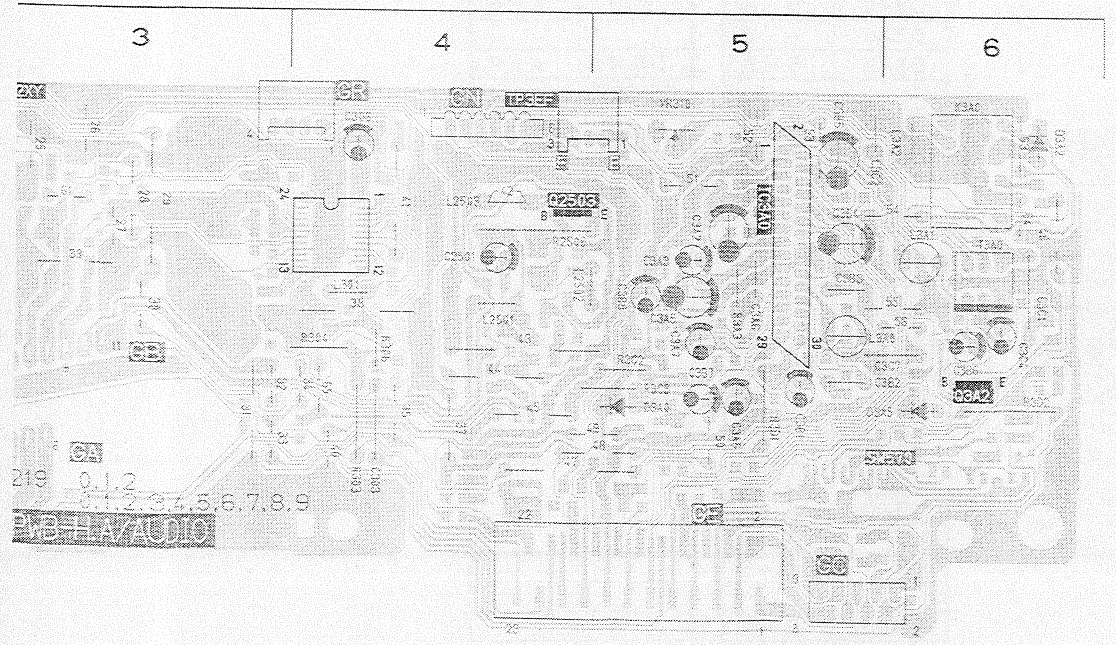
SYMBOL NO.	ADDRESS
Q201	A – 5
Q202	B – 6
Q203	A – 5
Q205	A – 5
Q206	B – 5
Q207	A – 5
Q208	A – 6
Q260	B – 1
Q261	B – 1
Q262	B – 1
Q3A0	A – 2
Q3A1	B – 2
Q3A3	A – 1
Q2501	A – 2
Q2502	A – 2
Q2504	B – 2
Q2505	A – 3
R202	B – 5
R205	A – 5
R206	A – 5
R207	A – 6
R208	A – 6
R209	A – 6
R210	A – 6

SYMBOL NO.	ADDRESS
R211	A – 6
R212	A – 6
R213	A – 6
R214	A – 6
R215	A – 6
R216	A – 6
R217	A – 5
R218	A – 5
R219	A – 5
R220	A – 5
R221	B – 6
R222	A – 5
R260	B – 1
R261	B – 1
R262	B – 1
R263	B – 1
R264	B – 1
R265	A – 1
R266	A – 1
R267	B – 1
R268	B – 1
R269	B – 1
R270	B – 2
R271	B – 2
R301	A – 4

SYMBOL NO.	ADDRESS
R302	A – 4
R305	A -- 3
R307	A – 3
R308	A – 4
R309	A – 4
R310	A – 3
R311	A – 3
R312	A – 3
R2501	A – 2
R2502	A – 2
R2503	A – 3
R2504	A – 2
R2505	A – 2
R2507	B – 3
R3A0	A – 2
R3A1	A – 2
R3A2	A – 2
R3A4	A – 2
R3A5	A – 2
R3A6	B – 2
R3A7	B – 2
R3A8	B – 2
R3A9	B – 2
R3B0	A – 2
R3B1	B – 1

SYMBOL NO.	ADDRESS
R3B2	A – 1
R3B3	A – 1
R3B4	A – 1
R3B6	B – 2
R3B7	B – 2
R3B8	A – 1
R3B9	B – 1
R3C0	A – 2
R3C1	A – 2
R3C4	B – 2
R3C5	B – 2
R3C6	B – 3
R3C7	A – 1
R3C8	A – 1
R3D3	A – 2
R3D4	A – 2
RJ301	A – 4
RJ302	B – 3
RJ303	B – 3
RJ304	B – 3
RJ305	B – 3
RJ306	A – 3
RJ307	B – 1
RJ309	B – 6

SYMBOL NO.	ADDRESS
RJ310	A – 6
RJ311	B – 5
RJ313	B – 5
RJ314	B – 6
RJ315	B – 6
RJ316	B – 2
RJ317	B – 5
RJ318	B – 2
RJ319	B – 5
RJ320	A – 3
RJ321	A – 5
RJ322	B – 1
RJ323	B – 1
RJ324	B – 4
RJ325	B – 3
RJ3A1	A – 2
RJ3A2	A – 2
RJ3A3	B – 2
RJ3A5	B – 2
RJ3A6	A – 1
RJ3A7	A – 1
RJ3A8	A – 1
RJ3A9	B – 2

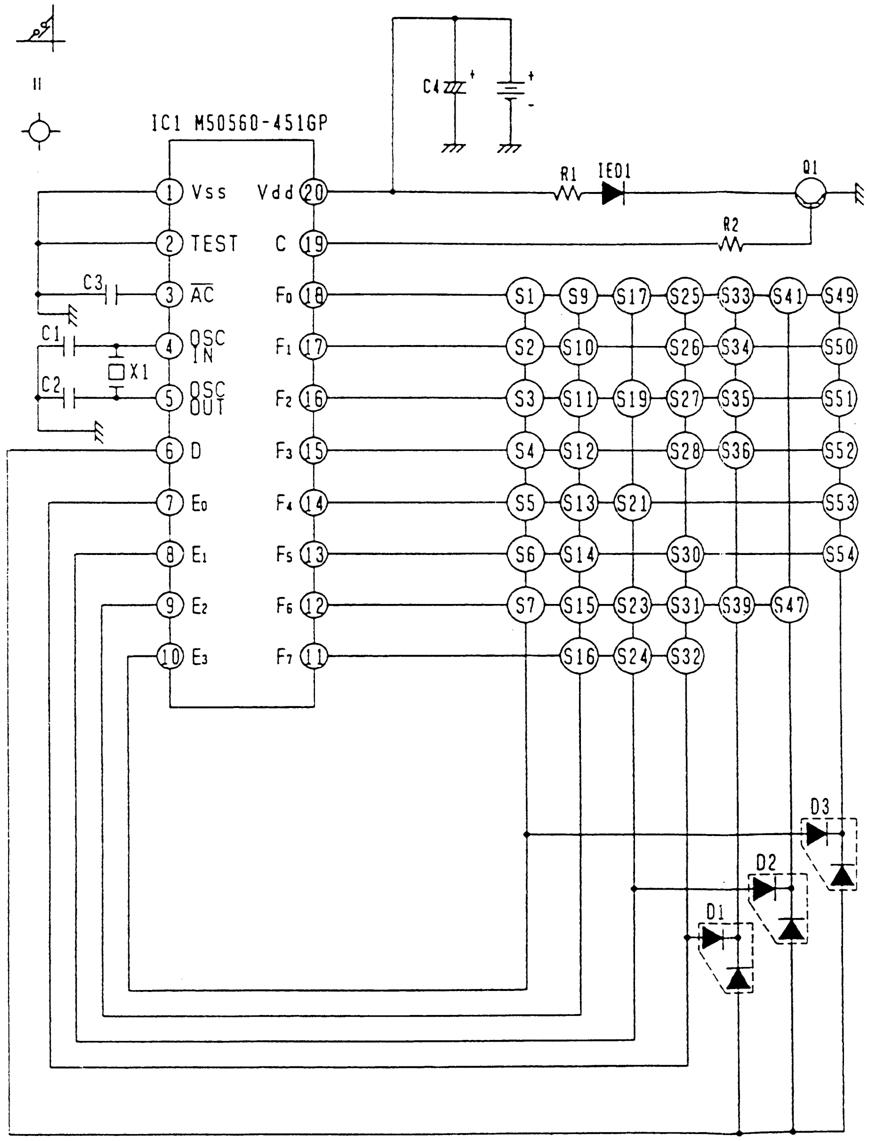


PCB-HA/AUDIO [COMPONENT SIDE]

SYMBOL NO.	ADDRESS
D3A0	B – 5
D3A2	A – 6
D3A5	B – 6
IC201	A – 2
IC3A0	A – 5
K3A0	A – 6
L201	A – 1
L202	A – 1
L203	A – 1
L204	A – 1
L301	A – 4
L2501	A – 4
L2502	A – 5
L2503	A – 4
L3A0	A – 6
L3A1	A – 6
L3A2	A – 6
Q3A2	B – 6
Q2503	A – 4
SW570	B – 6

SYMBOL NO.	ADDRESS
T3A0	A – 6
TP2XY	A – 2
TP3EF	A – 4
VR310	A – 5

TRANSMITTER REMOTE CONTROL


IC1 M50560-451GP
Vss
TEST
AC
OSC IN
OSC OUT
D
E0
E1
E2
E3
Vdd
C
F0
F1
F2
F3
F4
F5
F6
F7
C1
C2
C3
C4
X1
R1
R2
LED1
Q1
D1
D2
D3
S1
S2
S3
S4
S5
S6
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S53
S54